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Shift-Share Analysis: Ohio, 2005 - 2018

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Supplementary Document 8

Shift-Share Analysis: Ohio, 2005 - 2018

**Prepared for the Appalachian Regional Commission by the
West Virginia University Regional Research Institute**

Randall Jackson and Peter Jarosi

11-Jun-2020

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Chapter 1. Adams County, Ohio

Employment in Adams County, Ohio, declined from 6,758 in 2005 to 6,065 in 2018, for a change of -693, or -10.25%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Adams County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	763	-1,455	150	-1,605
vs. Appalachia	21	-717	269	-986
vs. Neighbors	-546	-151	204	-355

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Adams County, Ohio, in comparison to at least one of the three referent regions.

Chapter 1. Adams County, Ohio

Industry Group Membership for Adams County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	F III c iii	no	yes	yes	yes
12	Fabricated metal products	F III c i	no	yes	yes	yes
13	Machinery	F III c iii	no	yes	yes	yes
17	Other transportation ...	F III c i	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
55	Administrative and ...	A I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B V e ii	yes	no	no	yes
68	Government	F III a i	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Adams County, Ohio vs. the United States

Groups a, b, and c are from Adams County, Ohio vs. Appalachia

Groups i, ii, and iii are from Adams County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Adams County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Adams County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Adams County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Adams County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

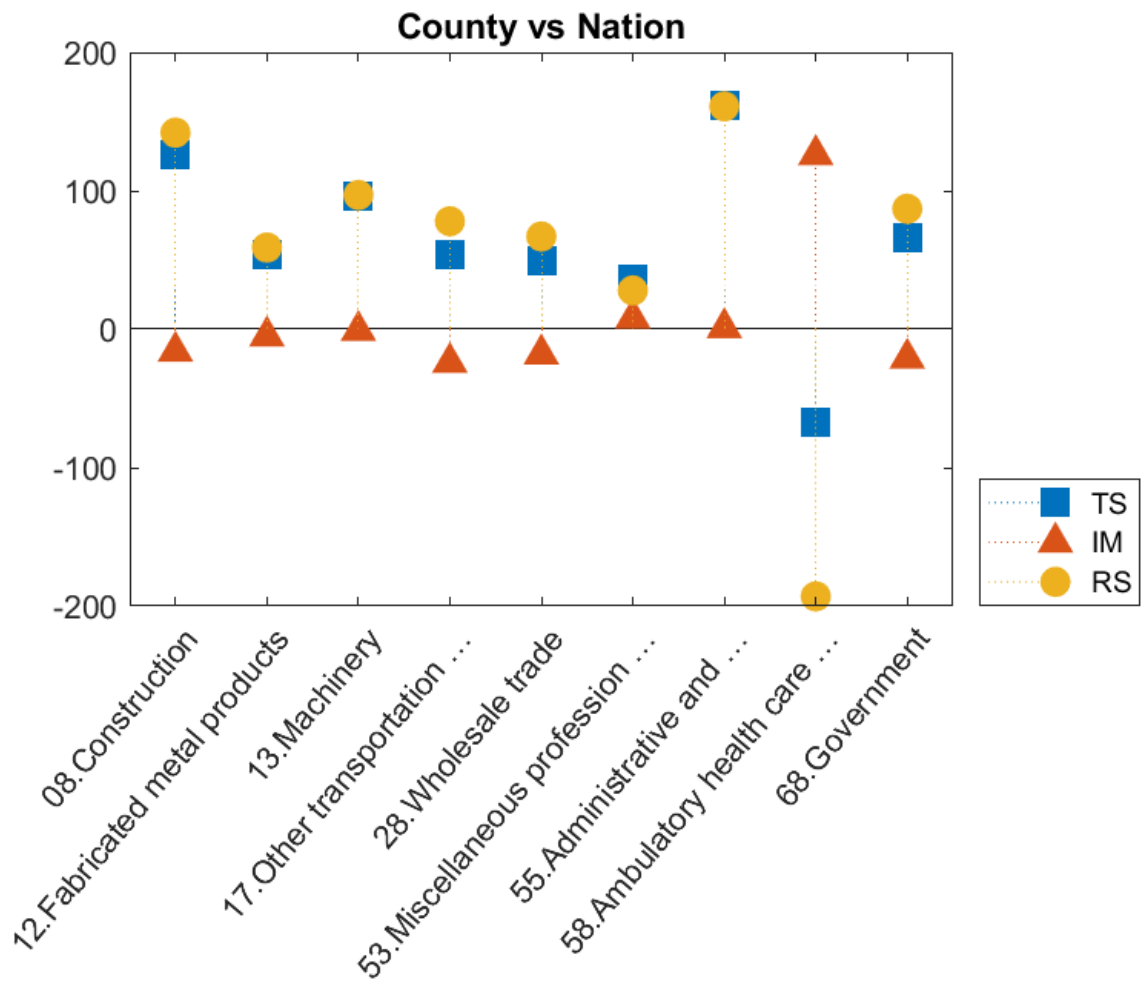
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Adams County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Adams County, Ohio vs the U.S.

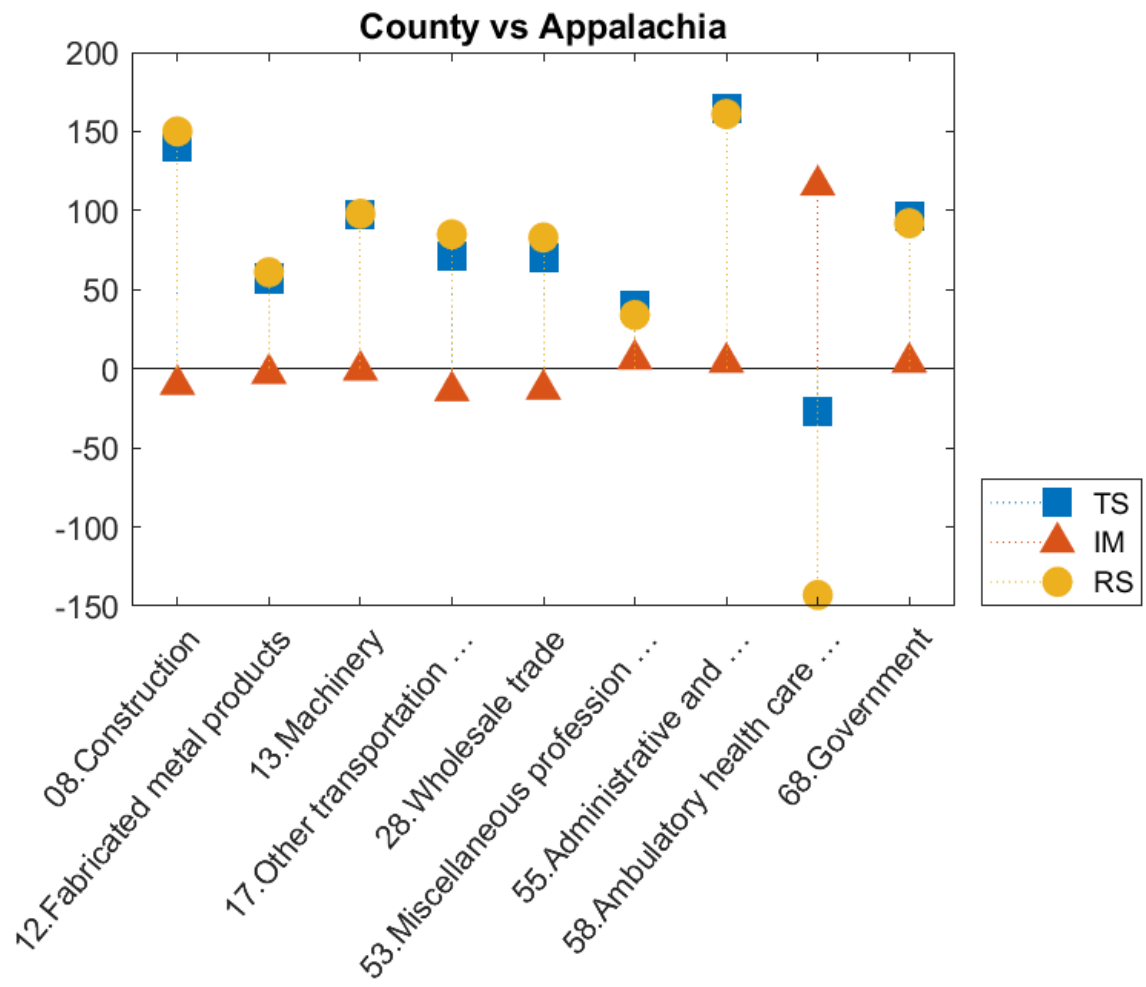


Chapter 1. Adams County, Ohio

Adams County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	15	126	-16	142	276
12	Fabricated metal products	4	54	-5	59	95
13	Machinery	1	96	-1	97	104
17	Other transportation ...	17	54	-24	78	221
28	Wholesale trade	21	49	-18	67	254
53	Miscellaneous profession ...	5	36	8	28	89
55	Administrative and ...	4	162	1	161	198
58	Ambulatory health care ...	41	-67	126	-193	334
68	Government	32	66	-21	87	377

Selected SSA Components for Adams County, Ohio vs the Appalachian Region

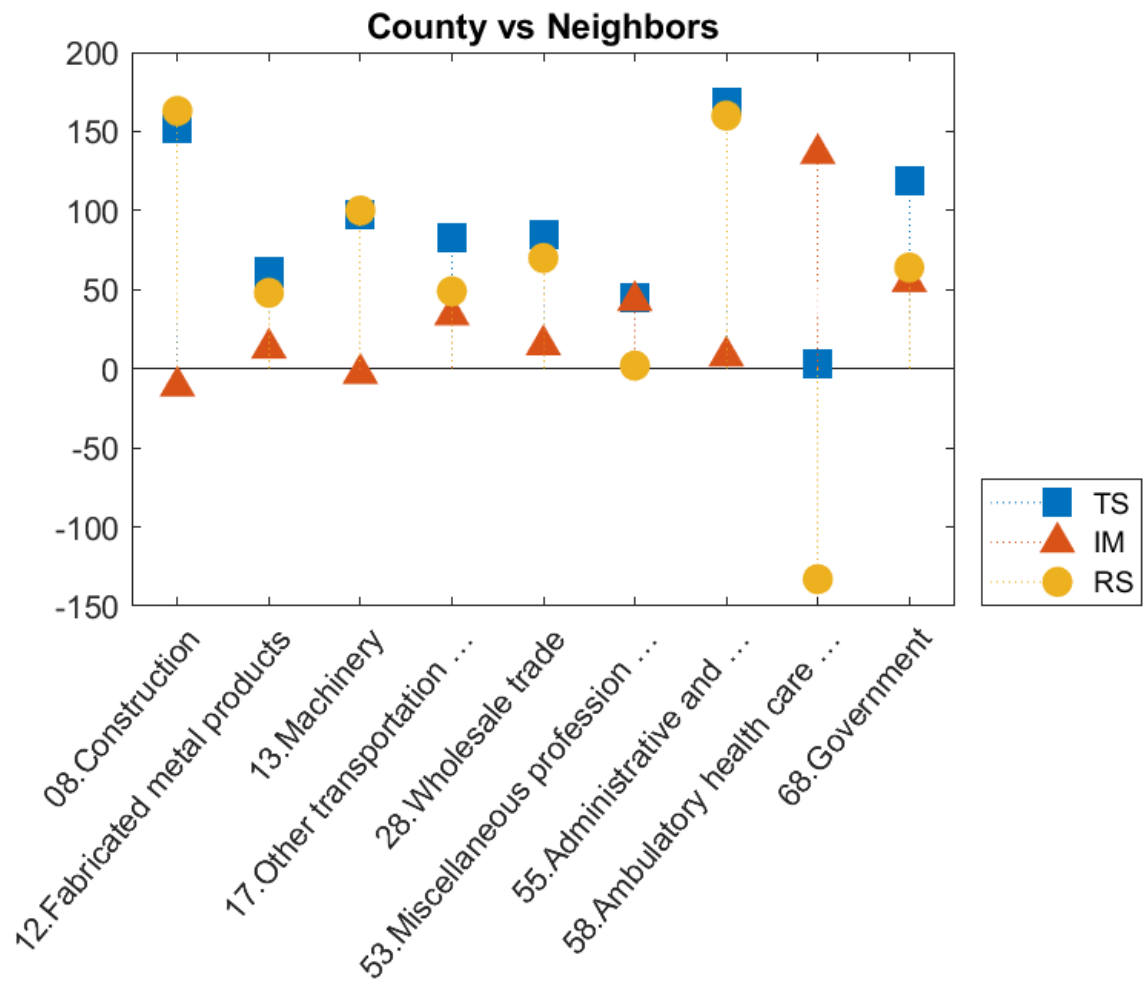


Chapter 1. Adams County, Ohio

Selected SSA Components for Adams County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	0	140	-10	150	276
12	Fabricated metal products	0	58	-3	61	95
13	Machinery	0	97	-1	98	104
17	Other transportation ...	1	71	-14	85	221
28	Wholesale trade	1	70	-13	83	254
53	Miscellaneous profession ...	0	40	6	34	89
55	Administrative and ...	0	165	4	161	198
58	Ambulatory health care ...	1	-27	116	-143	334
68	Government	1	96	4	92	377

Selected SSA Components for Adams County, Ohio vs Neighbors



Chapter 1. Adams County, Ohio

Selected SSA Components for Adams County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-11	152	-11	163	276
12	Fabricated metal products	-3	61	13	48	95
13	Machinery	-1	97	-3	100	104
17	Other transportation ...	-12	83	34	49	221
28	Wholesale trade	-15	85	15	70	254
53	Miscellaneous profession ...	-4	45	43	2	89
55	Administrative and ...	-3	168	8	160	198
58	Ambulatory health care ...	-29	3	136	-133	334
68	Government	-23	119	55	64	377

Chapter 2. Ashtabula County, Ohio

Employment in Ashtabula County, Ohio, declined from 34,012 in 2005 to 30,790 in 2018, for a change of -3,222, or -9.47%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Ashtabula County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	3,832	-7,066	-905	-6,161
vs. Appalachia	115	-3,335	452	-3,787
vs. Neighbors	-2,895	-332	118	-450

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Ashtabula County, Ohio, in comparison to at least one of the three referent regions.

Chapter 2. Ashtabula County, Ohio

Industry Group Membership for Ashtabula County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
11	Primary metals	F III c iii	no	yes	yes	yes
23	Paper products	D III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
55	Administrative and ...	A V e i	yes	no	no	yes
58	Ambulatory health care ...	B V b ii	yes	no	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
61	Social assistance	B II a ii	yes	yes	yes	yes
64	Accommodation	A V e ii	yes	no	no	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Ashtabula County, Ohio vs. the United States

Groups a, b, and c are from Ashtabula County, Ohio vs. Appalachia

Groups i, ii, and iii are from Ashtabula County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Ashtabula County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Ashtabula County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Ashtabula County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Ashtabula County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

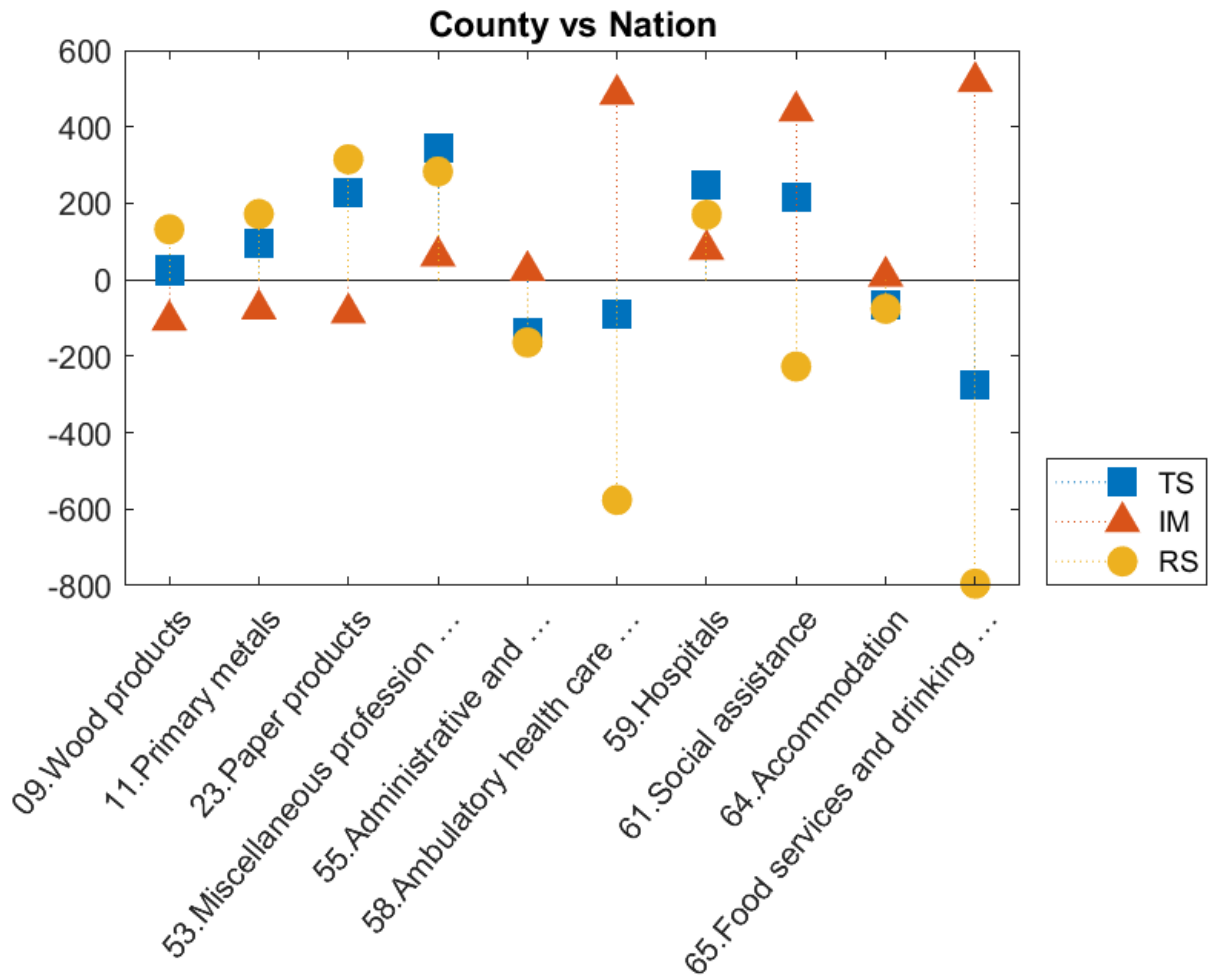
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Ashtabula County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Ashtabula County, Ohio vs the U.S.

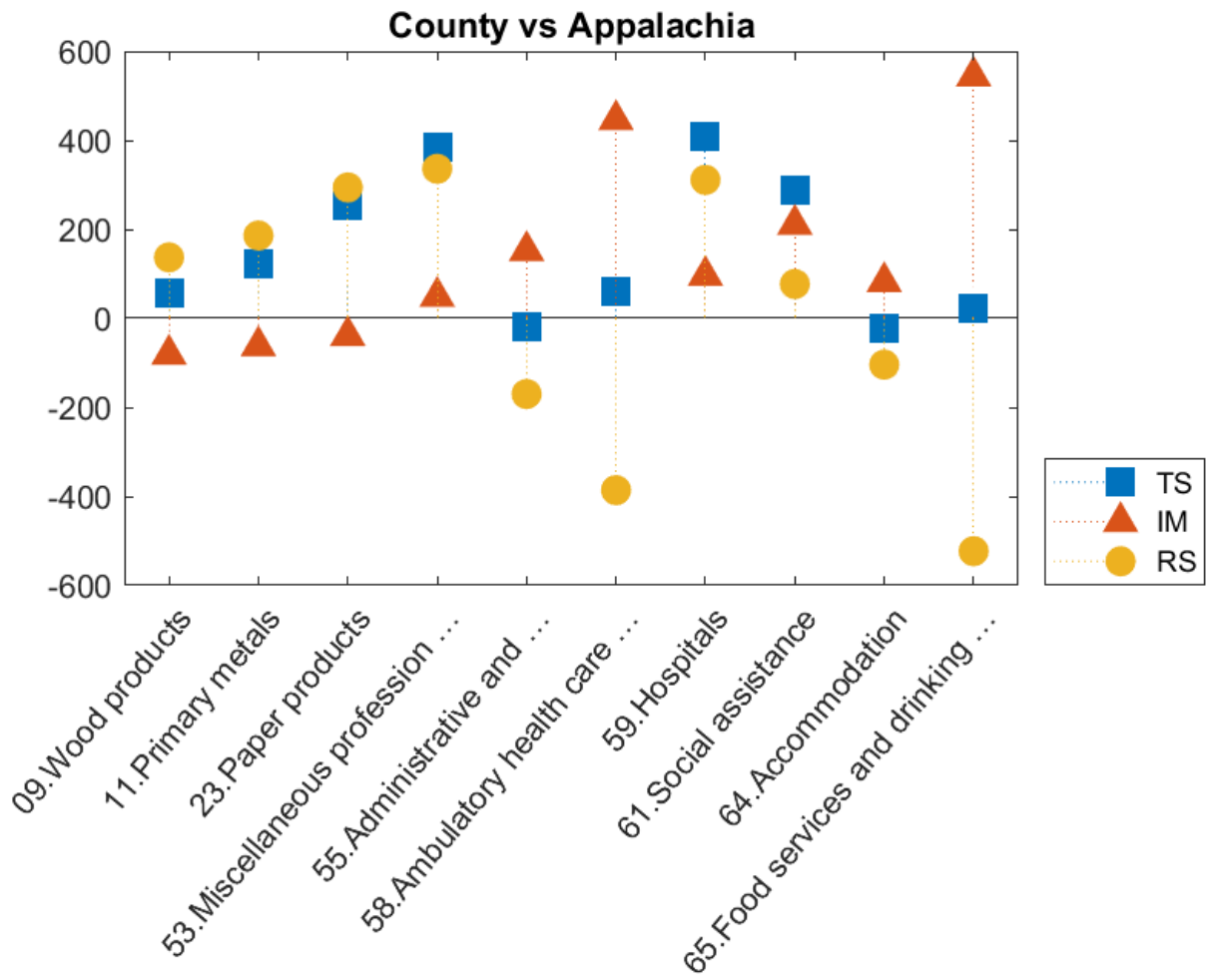


Chapter 2. Ashtabula County, Ohio

Ashtabula County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	30	26	-106	132	327
11	Primary metals	29	95	-77	172	383
23	Paper products	27	228	-87	315	498
53	Miscellaneous profession ...	42	345	62	283	755
55	Administrative and ...	126	-140	24	-164	1,101
58	Ambulatory health care ...	156	-91	485	-576	1,447
59	Hospitals	161	249	79	170	1,840
61	Social assistance	76	214	441	-227	963
64	Accommodation	45	-67	9	-76	381
65	Food services and drinking ...	307	-277	518	-795	2,749

Selected SSA Components for Ashtabula County, Ohio vs the Appalachian Region

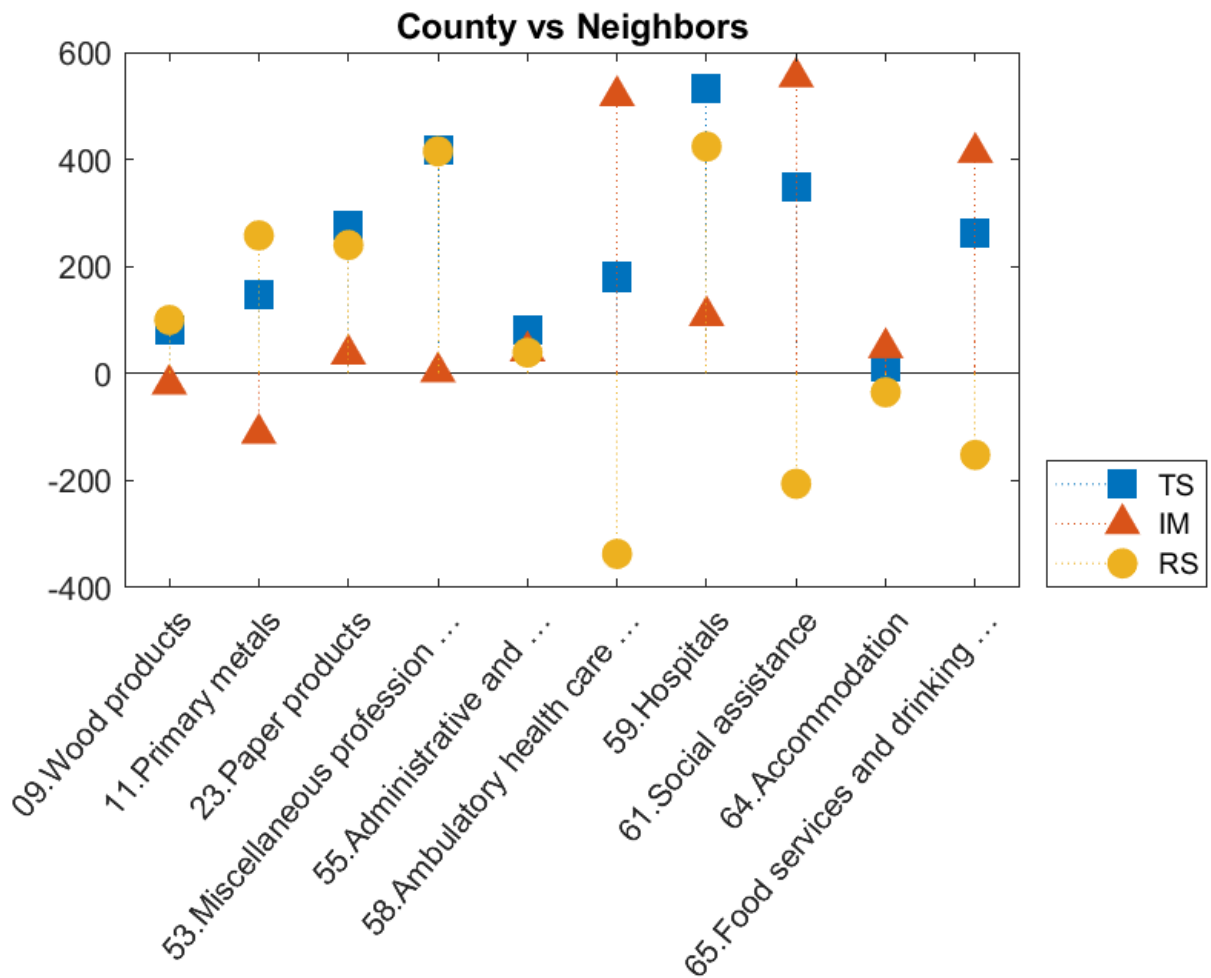


Chapter 2. Ashtabula County, Ohio

Selected SSA Components for Ashtabula County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	1	56	-81	137	327
11	Primary metals	1	124	-62	186	383
23	Paper products	1	255	-39	294	498
53	Miscellaneous profession ...	1	385	49	336	755
55	Administrative and ...	4	-18	152	-170	1,101
58	Ambulatory health care ...	5	60	446	-386	1,447
59	Hospitals	5	407	96	311	1,840
61	Social assistance	2	288	211	77	963
64	Accommodation	1	-22	82	-104	381
65	Food services and drinking ...	9	21	544	-523	2,749

Selected SSA Components for Ashtabula County, Ohio vs Neighbors



Chapter 2. Ashtabula County, Ohio

Selected SSA Components for Ashtabula County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-23	80	-20	100	327
11	Primary metals	-22	146	-112	258	383
23	Paper products	-21	276	36	240	498
53	Miscellaneous profession ...	-31	418	3	415	755
55	Administrative and ...	-95	81	42	39	1,101
58	Ambulatory health care ...	-118	182	519	-337	1,447
59	Hospitals	-121	532	108	424	1,840
61	Social assistance	-57	348	554	-206	963
64	Accommodation	-34	13	48	-35	381
65	Food services and drinking ...	-231	261	413	-152	2,749

Chapter 3. Athens County, Ohio

Employment in Athens County, Ohio, declined from 19,868 in 2005 to 17,190 in 2018, for a change of -2,678, or -13.48%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Athens County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,240	-4,918	361	-5,279
vs. Appalachia	62	-2,738	741	-3,479
vs. Neighbors	-2,032	-649	103	-752

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Athens County, Ohio, in comparison to at least one of the three referent regions.

Chapter 3. Athens County, Ohio

Industry Group Membership for Athens County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	F III c iii	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
30	Food and beverage stores	F III c i	no	yes	yes	yes
43	Broadcasting and telecom ...	F III c iii	no	yes	yes	yes
54	Management of companies ...	A I a i	yes	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
58	Ambulatory health care ...	B V e ii	yes	no	no	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
64	Accommodation	A I a i	yes	yes	yes	yes
65	Food services and drinking ...	B II b i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Athens County, Ohio vs. the United States

Groups a, b, and c are from Athens County, Ohio vs. Appalachia

Groups i, ii, and iii are from Athens County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Athens County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Athens County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Athens County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Athens County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

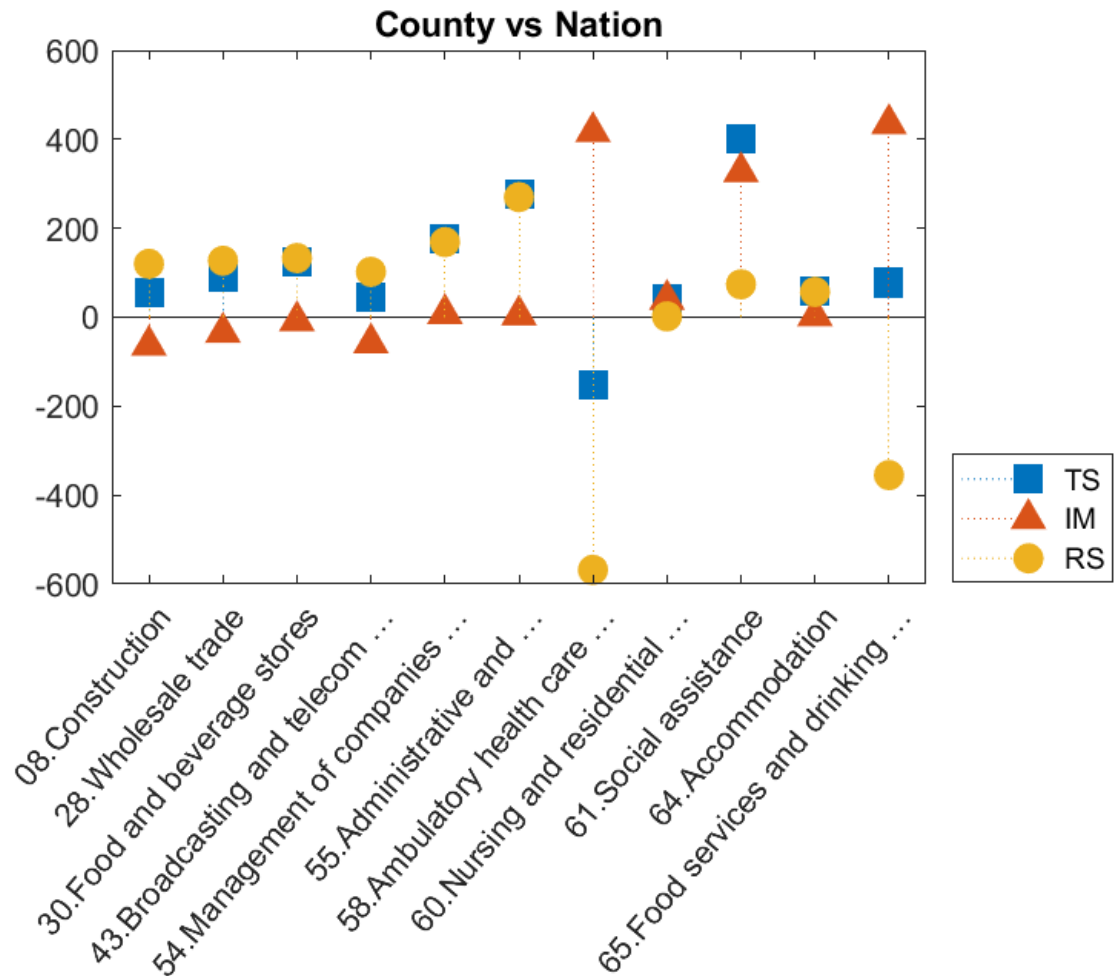
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Athens County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Athens County, Ohio vs the U.S.

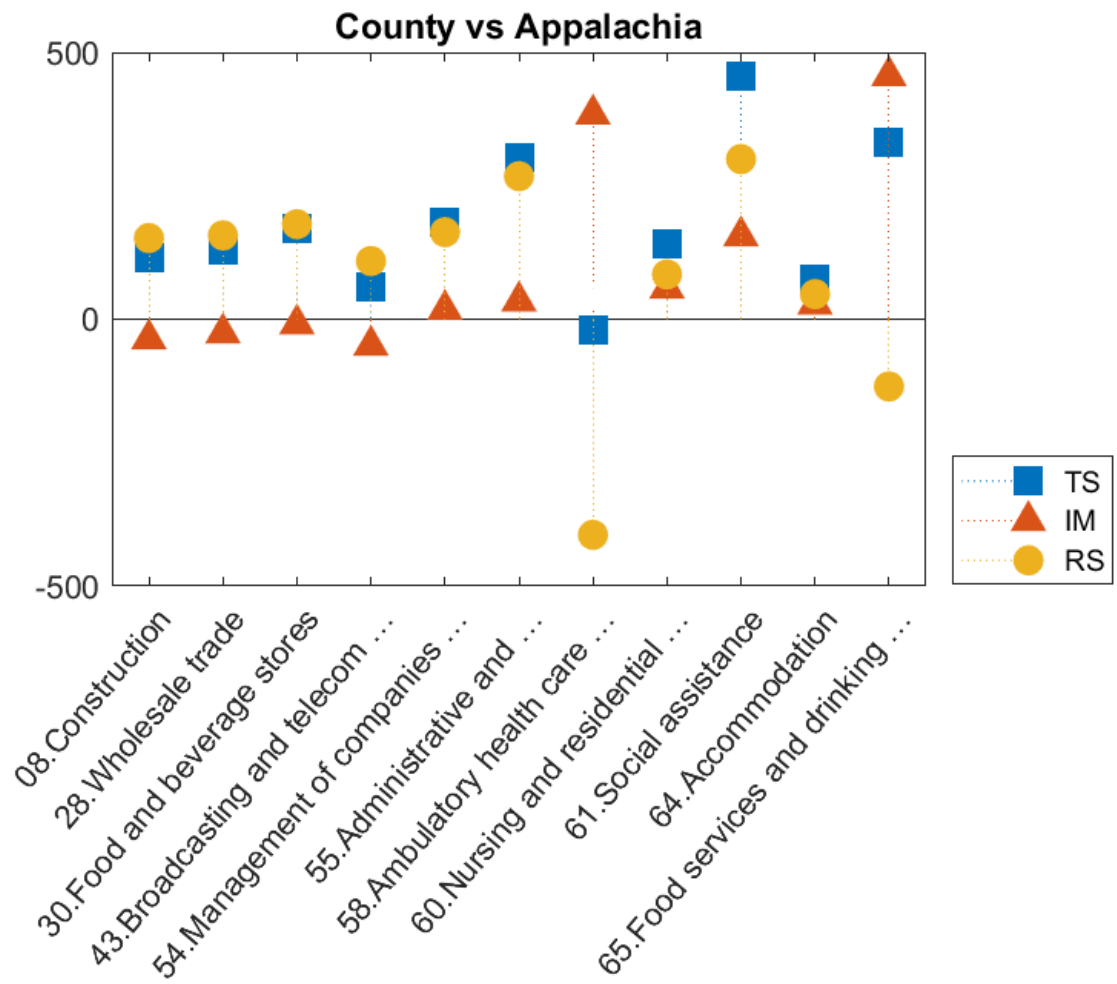


Chapter 3. Athens County, Ohio

Athens County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	59	57	-63	120	635
28	Wholesale trade	40	93	-34	127	485
30	Food and beverage stores	46	125	-8	133	580
43	Broadcasting and telecom ...	17	44	-58	102	207
54	Management of companies ...	4	177	8	169	215
55	Administrative and ...	28	275	5	270	551
58	Ambulatory health care ...	134	-151	417	-568	1,174
60	Nursing and residential ...	102	42	40	2	1,053
61	Social assistance	56	401	327	74	956
64	Accommodation	16	60	3	57	216
65	Food services and drinking ...	257	80	435	-355	2,621

Selected SSA Components for Athens County, Ohio vs the Appalachian Region

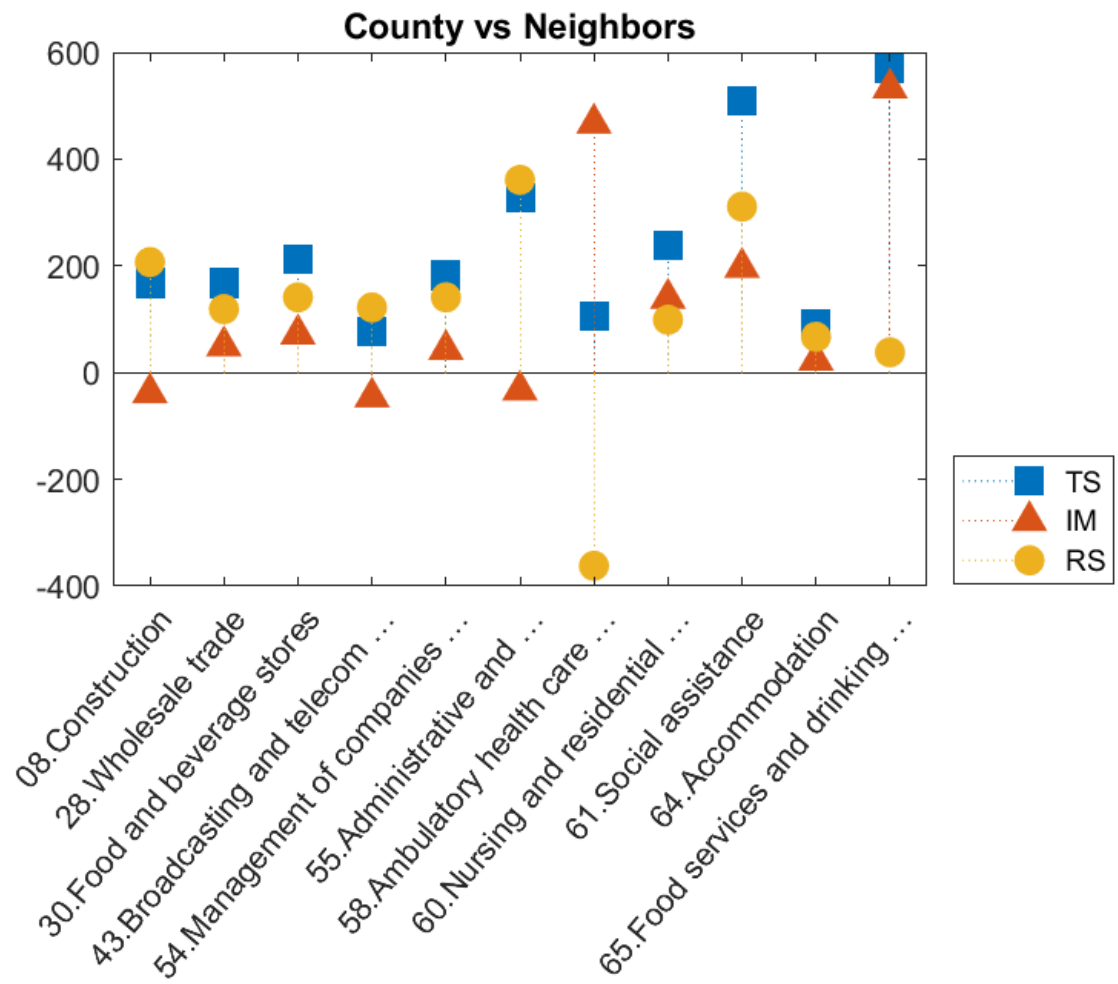


Chapter 3. Athens County, Ohio

Selected SSA Components for Athens County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	2	115	-37	152	635
28	Wholesale trade	1	131	-26	157	485
30	Food and beverage stores	1	169	-9	178	580
43	Broadcasting and telecom ...	0	60	-49	109	207
54	Management of companies ...	0	181	18	163	215
55	Administrative and ...	1	302	34	268	551
58	Ambulatory health care ...	4	-20	384	-404	1,174
60	Nursing and residential ...	3	142	58	84	1,053
61	Social assistance	2	456	156	300	956
64	Accommodation	0	75	28	47	216
65	Food services and drinking ...	8	330	456	-126	2,621

Selected SSA Components for Athens County, Ohio vs Neighbors



Chapter 3. Athens County, Ohio

Selected SSA Components for Athens County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-53	169	-38	207	635
28	Wholesale trade	-36	169	50	119	485
30	Food and beverage stores	-42	213	72	141	580
43	Broadcasting and telecom ...	-15	76	-46	122	207
54	Management of companies ...	-4	184	43	141	215
55	Administrative and ...	-25	328	-33	361	551
58	Ambulatory health care ...	-122	105	467	-362	1,174
60	Nursing and residential ...	-93	238	139	99	1,053
61	Social assistance	-51	508	197	311	956
64	Accommodation	-14	90	23	67	216
65	Food services and drinking ...	-233	571	533	38	2,621

Chapter 4. Belmont County, Ohio

Employment in Belmont County, Ohio, declined from 24,749 in 2005 to 22,618 in 2018, for a change of -2,131, or -8.61%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Belmont County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,789	-4,919	121	-5,040
vs. Appalachia	82	-2,218	390	-2,608
vs. Neighbors	-1,479	-655	1,547	-2,202

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Belmont County, Ohio, in comparison to at least one of the three referent regions.

Chapter 4. Belmont County, Ohio

Industry Group Membership for Belmont County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
06	Support activities for ...	A I a ii	yes	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
39	Other transportation ...	E II c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B V e ii	yes	no	no	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
61	Social assistance	B II b i	yes	yes	yes	yes
64	Accommodation	A I a ii	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes
68	Government	F III a iii	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Belmont County, Ohio vs. the United States

Groups a, b, and c are from Belmont County, Ohio vs. Appalachia

Groups i, ii, and iii are from Belmont County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Belmont County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Belmont County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Belmont County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Belmont County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

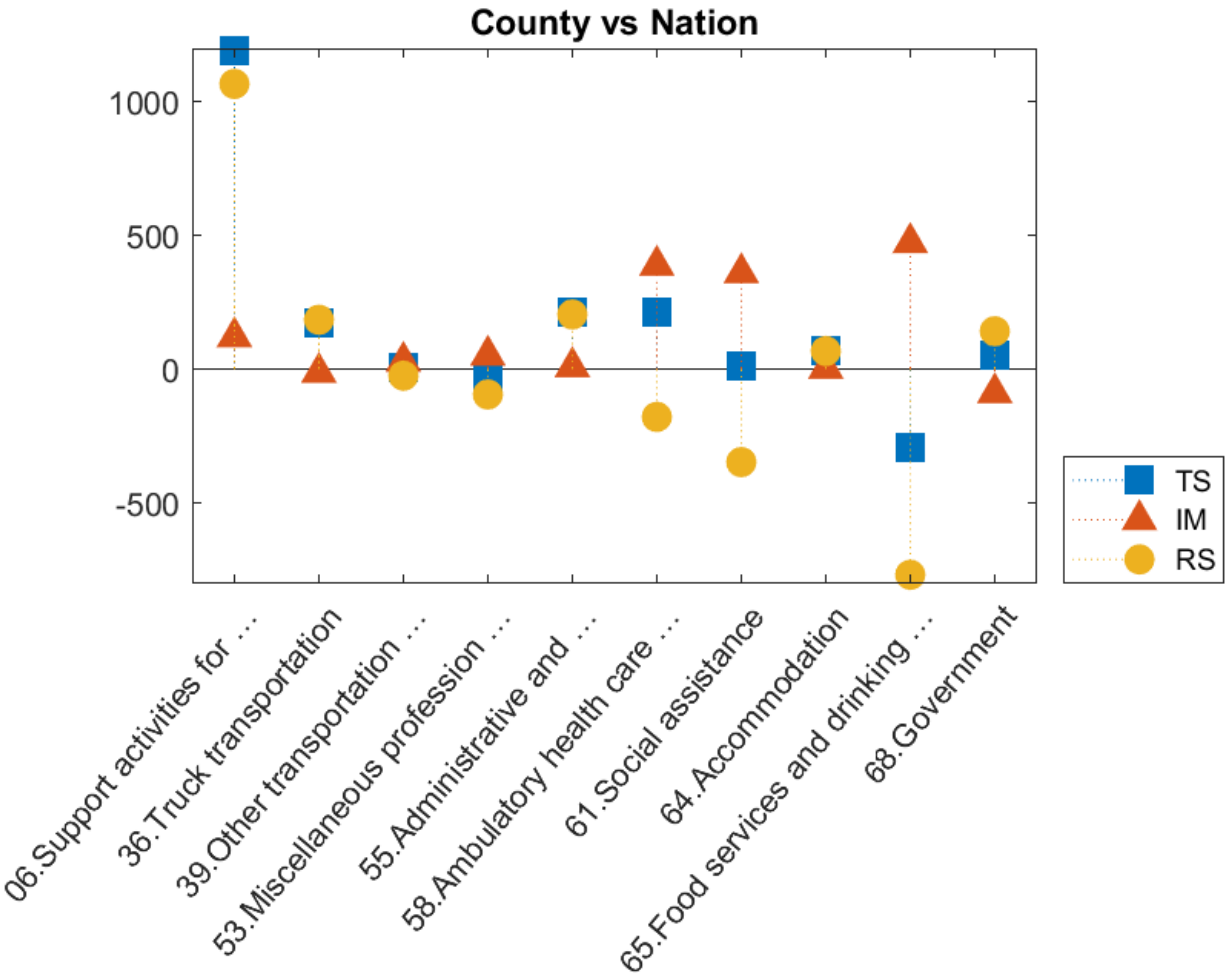
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Belmont County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Belmont County, Ohio vs the U.S.

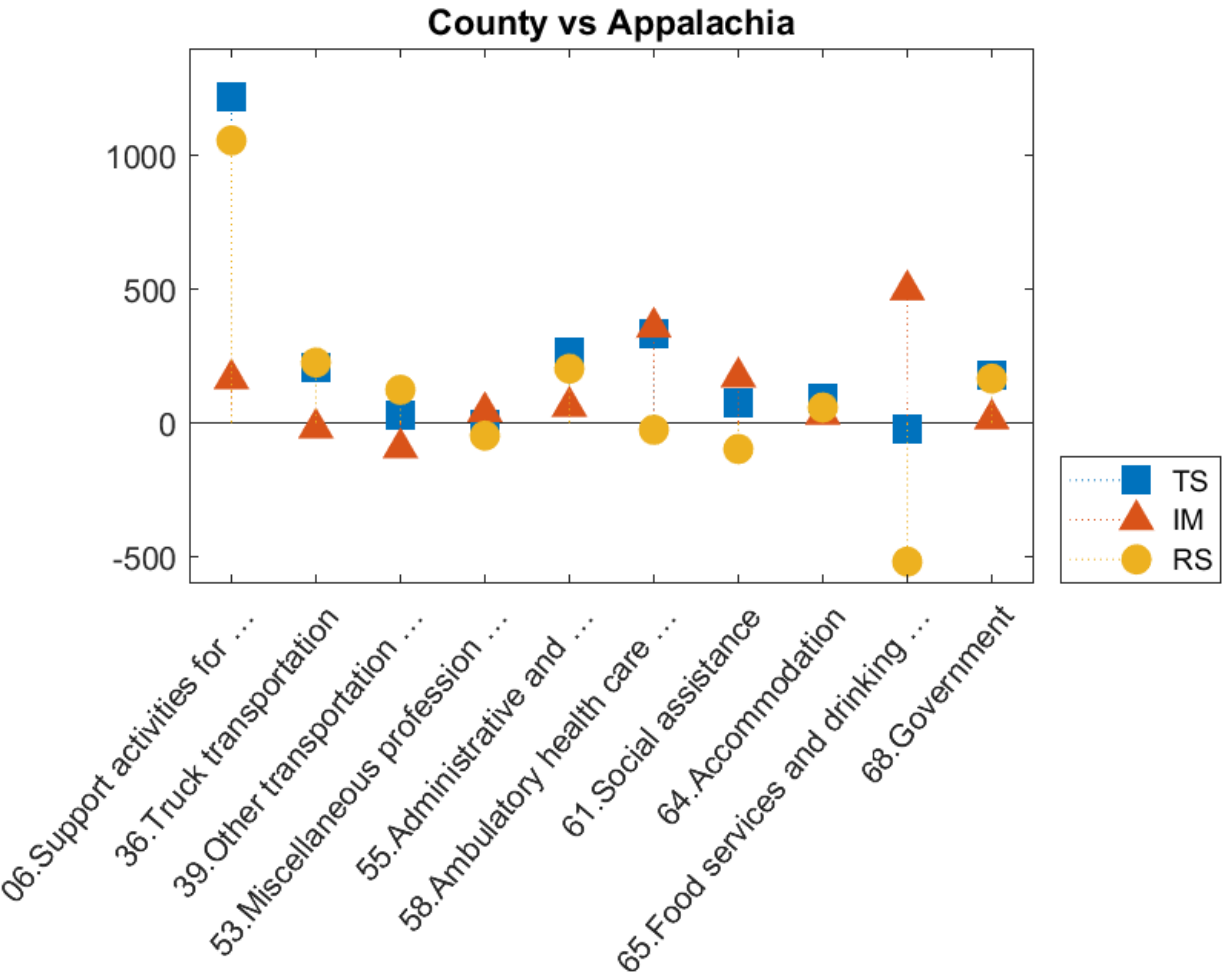


Chapter 4. Belmont County, Ohio

Belmont County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	33	1,189	122	1,067	1,517
36	Truck transportation	32	175	-11	186	494
39	Other transportation ...	24	7	30	-23	246
53	Miscellaneous profession ...	35	-40	53	-93	310
55	Administrative and ...	52	216	10	206	726
58	Ambulatory health care ...	125	212	389	-177	1,445
61	Social assistance	62	15	361	-346	627
64	Accommodation	18	73	4	69	250
65	Food services and drinking ...	280	-293	474	-767	2,475
68	Government	129	56	-87	143	1,327

Selected SSA Components for Belmont County, Ohio vs the Appalachian Region

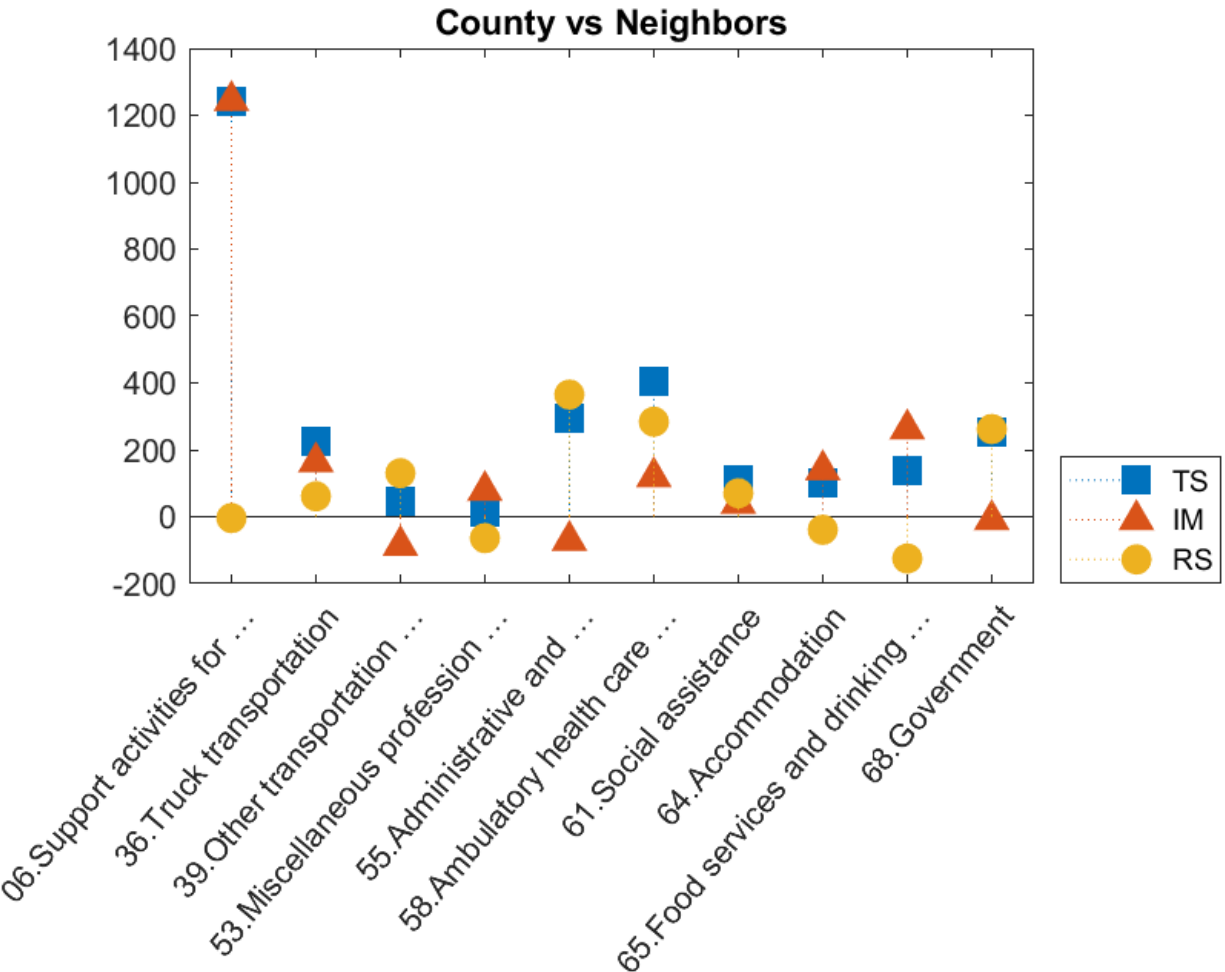


Chapter 4. Belmont County, Ohio

Selected SSA Components for Belmont County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	1	1,221	165	1,056	1,517
36	Truck transportation	1	207	-19	226	494
39	Other transportation ...	1	31	-93	124	246
53	Miscellaneous profession ...	1	-5	42	-47	310
55	Administrative and ...	2	265	62	203	726
58	Ambulatory health care ...	4	333	358	-25	1,445
61	Social assistance	2	75	172	-97	627
64	Accommodation	1	90	32	58	250
65	Food services and drinking ...	8	-21	497	-518	2,475
68	Government	4	181	15	166	1,327

Selected SSA Components for Belmont County, Ohio vs Neighbors



Chapter 4. Belmont County, Ohio

Selected SSA Components for Belmont County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	-18	1,240	1,244	-4	1,517
36	Truck transportation	-17	225	164	61	494
39	Other transportation ...	-13	44	-86	130	246
53	Miscellaneous profession ...	-19	14	78	-64	310
55	Administrative and ...	-27	294	-71	365	726
58	Ambulatory health care ...	-66	403	119	284	1,445
61	Social assistance	-33	110	40	70	627
64	Accommodation	-9	101	140	-39	250
65	Food services and drinking ...	-149	137	262	-125	2,475
68	Government	-68	253	-9	262	1,327

Chapter 5. Brown County, Ohio

Employment in Brown County, Ohio, declined from 8,457 in 2005 to 8,136 in 2018, for a change of -321, or -3.8%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Brown County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	955	-1,275	-10	-1,265
vs. Appalachia	26	-354	191	-545
vs. Neighbors	-415	92	448	-356

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Brown County, Ohio, in comparison to at least one of the three referent regions.

Chapter 5. Brown County, Ohio

Industry Group Membership for Brown County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
07	Utilities	F III c iii	no	yes	yes	yes
13	Machinery	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies ...	C III a iii	yes	yes	yes	yes
29	Motor vehicle and parts ...	F III a i	no	yes	yes	yes
30	Food and beverage stores	F III c i	no	yes	yes	yes
31	General merchandise ...	F III c i	no	yes	yes	yes
39	Other transportation ...	E I c iii	no	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
65	Food services and drinking ...	B II a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Brown County, Ohio vs. the United States

Groups a, b, and c are from Brown County, Ohio vs. Appalachia

Groups i, ii, and iii are from Brown County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Brown County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Brown County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Brown County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Brown County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

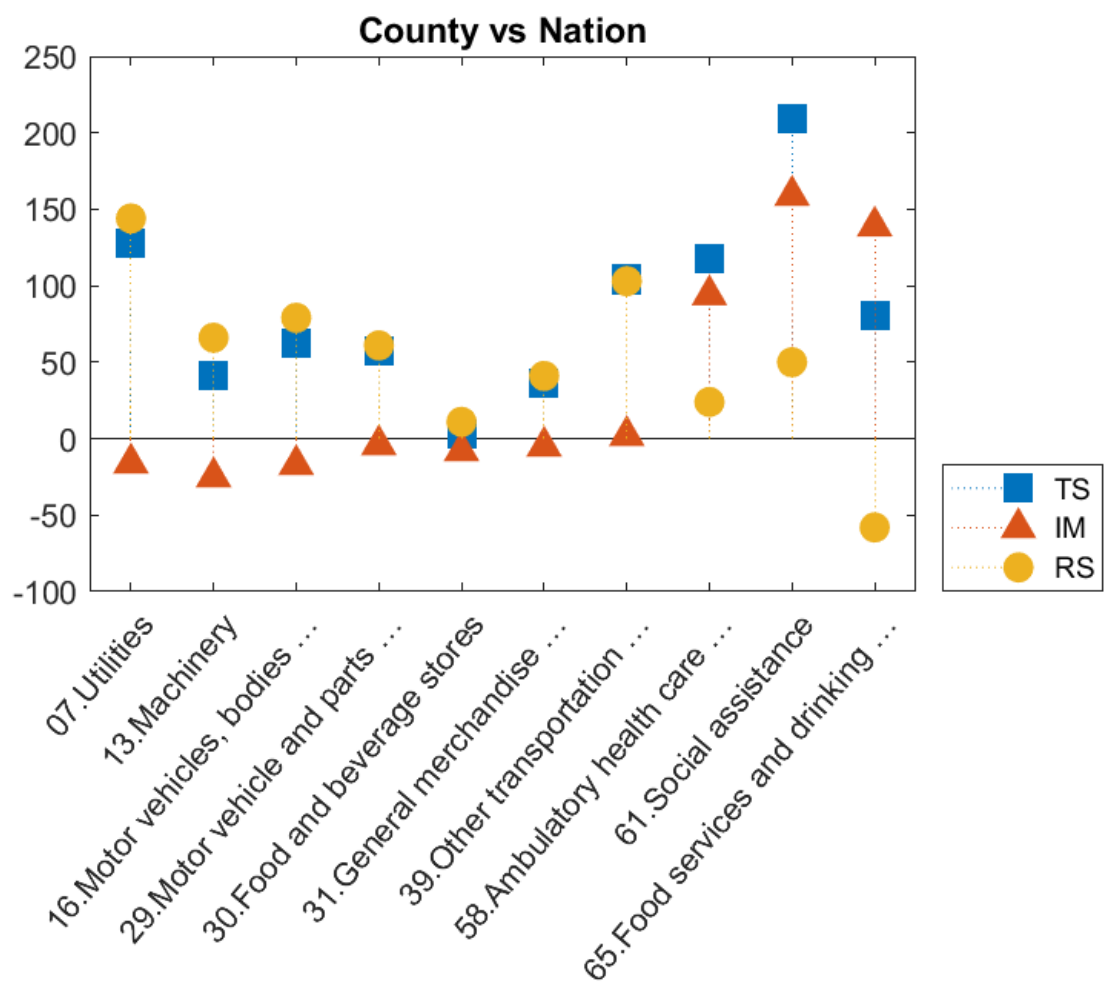
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Brown County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Brown County, Ohio vs the U.S.

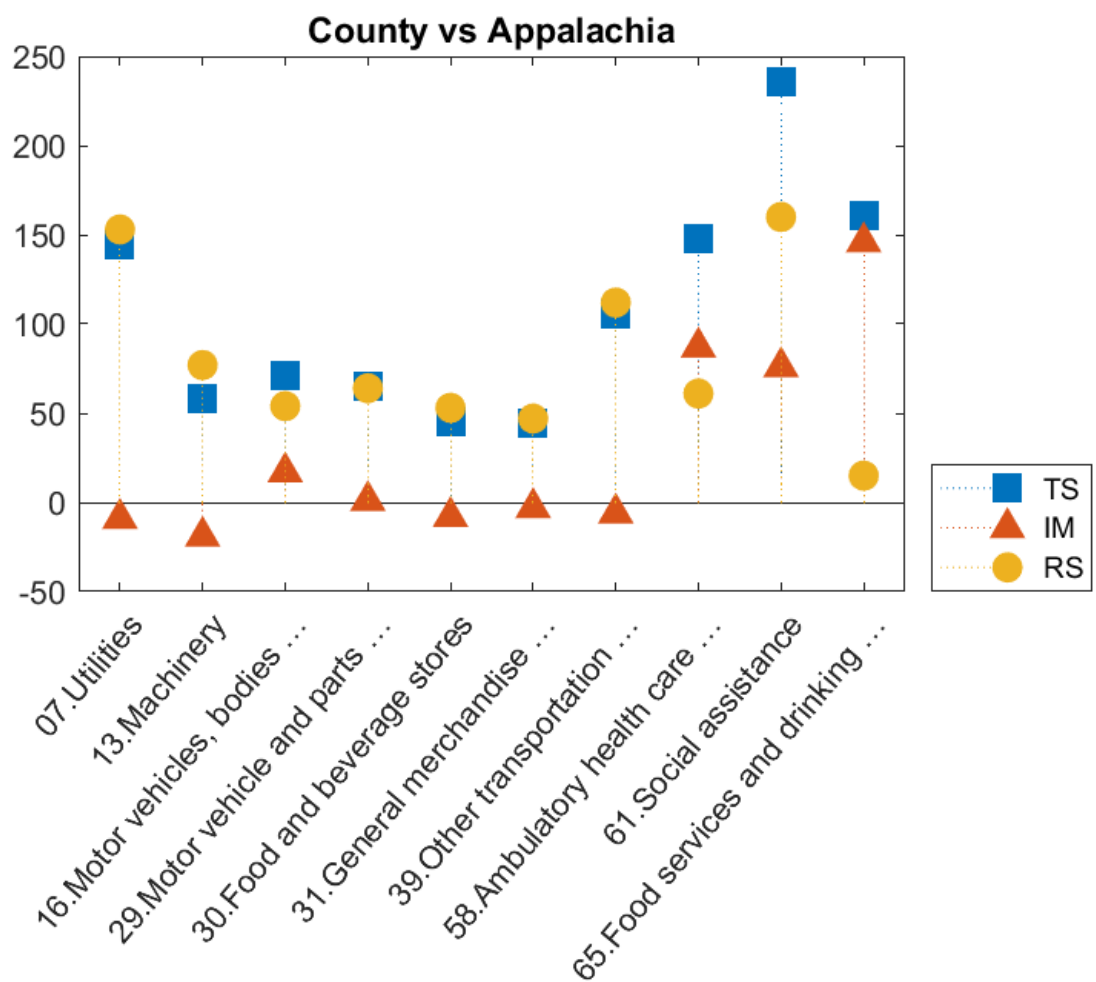


Chapter 5. Brown County, Ohio

Brown County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	17	128	-16	144	293
13	Machinery	17	41	-25	66	208
16	Motor vehicles, bodies ...	10	62	-17	79	157
29	Motor vehicle and parts ...	8	57	-4	61	136
30	Food and beverage stores	43	3	-8	11	427
31	General merchandise ...	9	36	-5	41	123
39	Other transportation ...	2	105	2	103	120
58	Ambulatory health care ...	30	118	94	24	416
61	Social assistance	27	209	159	50	480
65	Food services and drinking ...	82	81	139	-58	891

Selected SSA Components for Brown County, Ohio vs the Appalachian Region

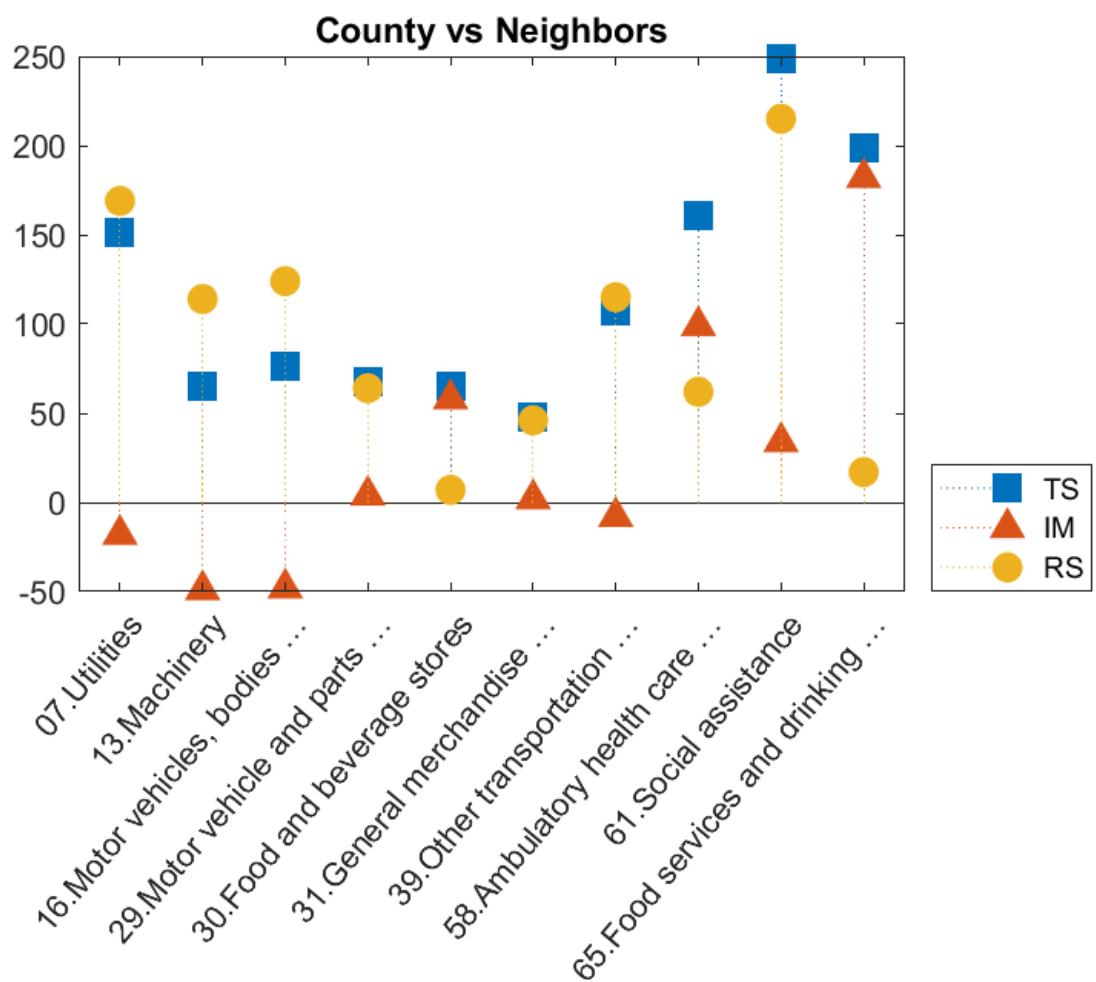


Chapter 5. Brown County, Ohio

Selected SSA Components for Brown County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	1	144	-9	153	293
13	Machinery	1	58	-19	77	208
16	Motor vehicles, bodies ...	0	71	17	54	157
29	Motor vehicle and parts ...	0	65	1	64	136
30	Food and beverage stores	1	45	-8	53	427
31	General merchandise ...	0	44	-3	47	123
39	Other transportation ...	0	106	-6	112	120
58	Ambulatory health care ...	1	148	87	61	416
61	Social assistance	1	236	76	160	480
65	Food services and drinking ...	2	161	146	15	891

Selected SSA Components for Brown County, Ohio vs Neighbors



Chapter 5. Brown County, Ohio

Selected SSA Components for Brown County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
07	Utilities	-7	151	-18	169	293
13	Machinery	-7	65	-49	114	208
16	Motor vehicles, bodies ...	-4	76	-48	124	157
29	Motor vehicle and parts ...	-3	68	4	64	136
30	Food and beverage stores	-19	65	58	7	427
31	General merchandise ...	-4	48	2	46	123
39	Other transportation ...	-1	107	-8	115	120
58	Ambulatory health care ...	-13	161	99	62	416
61	Social assistance	-12	249	34	215	480
65	Food services and drinking ...	-36	199	182	17	891

Chapter 6. Carroll County, Ohio

Employment in Carroll County, Ohio, grew from 6,104 in 2005 to 6,110 in 2018, for a change of 6, or 0.1%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Carroll County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	690	-681	-97	-584
vs. Appalachia	15	-13	20	-33
vs. Neighbors	-379	389	288	101

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Carroll County, Ohio, in comparison to at least one of the three referent regions.

Chapter 6. Carroll County, Ohio

Industry Group Membership for Carroll County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	F III c iii	no	yes	yes	yes
10	Nonmetallic mineral prod ...	F III c iii	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
26	Chemical products	F III c i	no	yes	yes	yes
31	General merchandise ...	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
39	Other transportation ...	E I a i	no	yes	yes	yes
50	Rental and leasing services ...	D III c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
64	Accommodation	A I a i	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Carroll County, Ohio vs. the United States

Groups a, b, and c are from Carroll County, Ohio vs. Appalachia

Groups i, ii, and iii are from Carroll County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Carroll County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Carroll County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Carroll County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Carroll County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

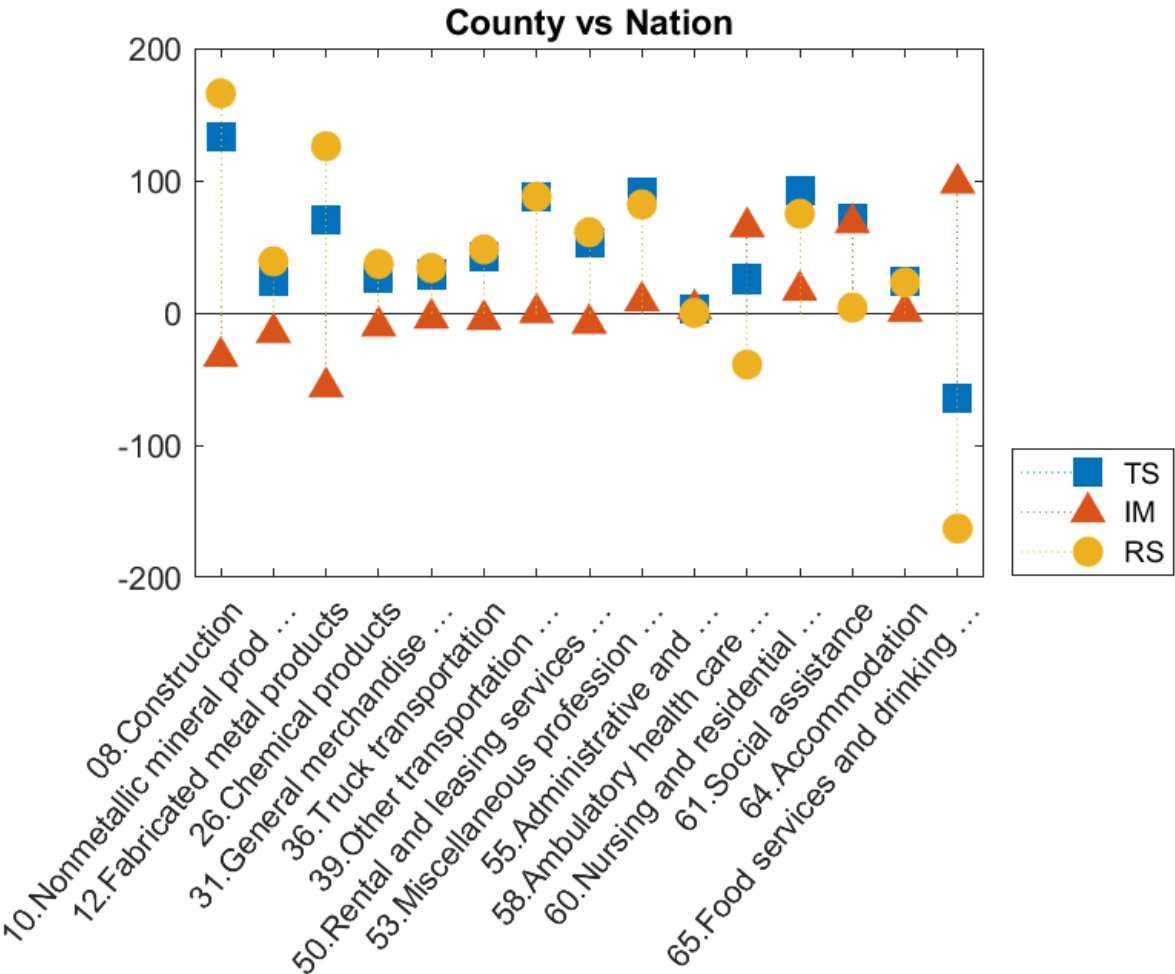
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Carroll County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Carroll County, Ohio vs the U.S.

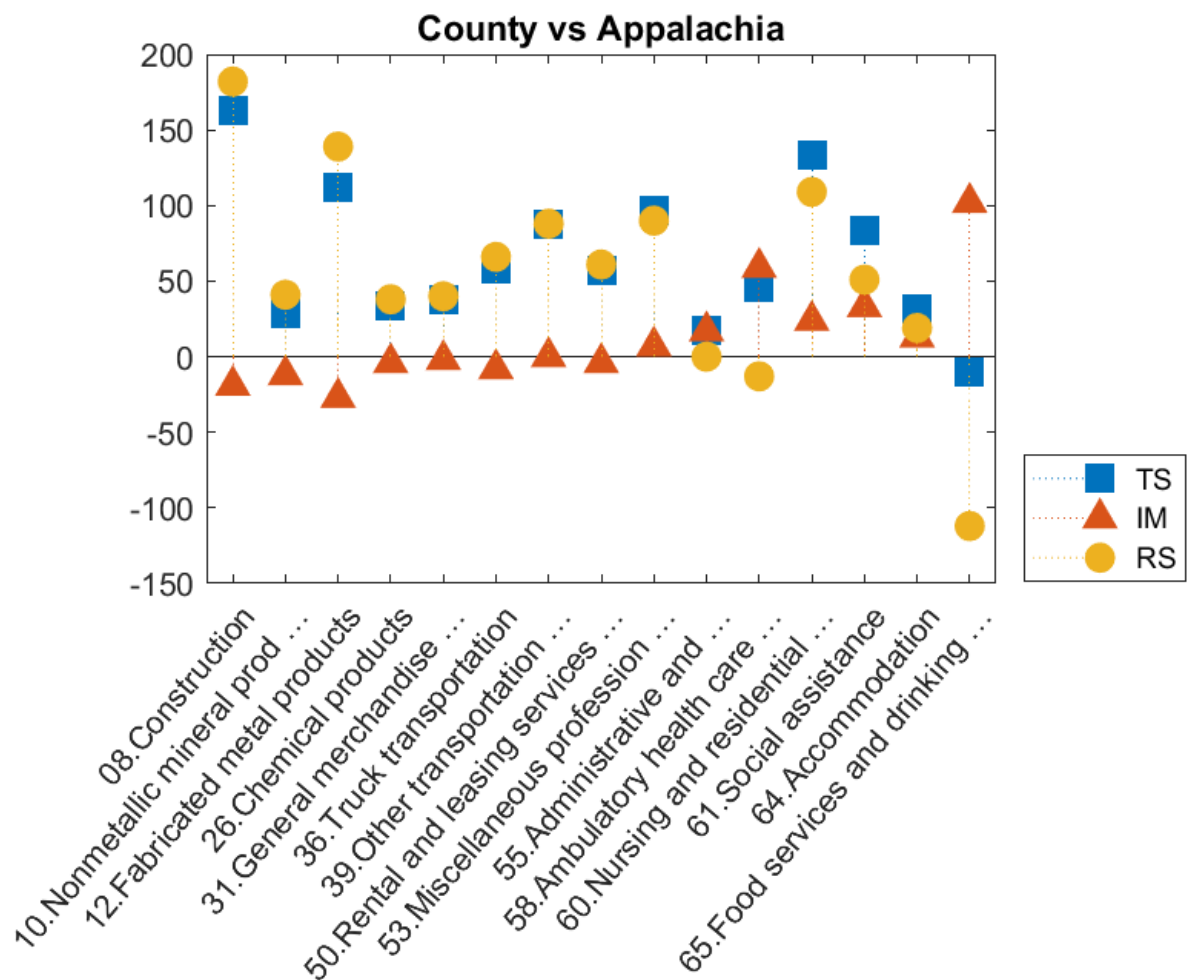


Chapter 6. Carroll County, Ohio

Carroll County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	30	133	-33	166	433
10	Nonmetallic mineral prod ...	6	24	-15	39	81
12	Fabricated metal products	43	70	-56	126	490
26	Chemical products	7	27	-10	37	98
31	General merchandise ...	8	30	-4	34	110
36	Truck transportation	15	43	-5	48	188
39	Other transportation ...	0	88	0	88	88
50	Rental and leasing services ...	4	53	-8	61	90
53	Miscellaneous profession ...	6	91	9	82	150
55	Administrative and ...	14	3	3	0	146
58	Ambulatory health care ...	21	26	65	-39	231
60	Nursing and residential ...	42	92	17	75	508
61	Social assistance	12	72	68	4	188
64	Accommodation	7	24	1	23	97
65	Food services and drinking ...	58	-65	98	-163	504

Selected SSA Components for Carroll County, Ohio vs the Appalachian Region

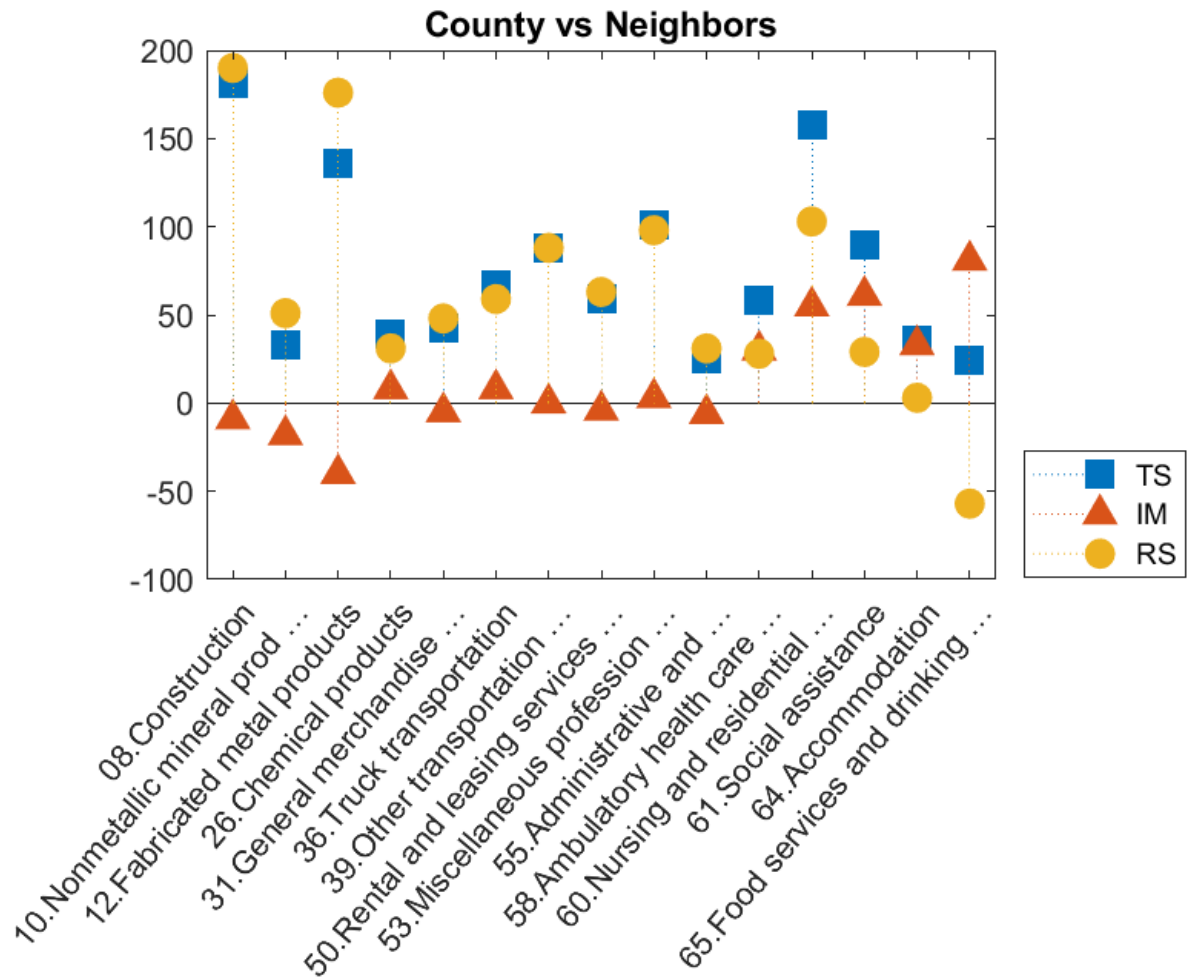


Chapter 6. Carroll County, Ohio

Selected SSA Components for Carroll County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	1	163	-19	182	433
10	Nonmetallic mineral prod ...	0	29	-12	41	81
12	Fabricated metal products	1	112	-27	139	490
26	Chemical products	0	34	-4	38	98
31	General merchandise ...	0	38	-2	40	110
36	Truck transportation	0	58	-8	66	188
39	Other transportation ...	0	88	0	88	88
50	Rental and leasing services ...	0	57	-4	61	90
53	Miscellaneous profession ...	0	97	7	90	150
55	Administrative and ...	0	17	17	-0	146
58	Ambulatory health care ...	1	46	59	-13	231
60	Nursing and residential ...	1	133	24	109	508
61	Social assistance	0	84	33	51	188
64	Accommodation	0	32	13	19	97
65	Food services and drinking ...	2	-10	102	-112	504

Selected SSA Components for Carroll County, Ohio vs Neighbors



Chapter 6. Carroll County, Ohio

Selected SSA Components for Carroll County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-17	181	-9	190	433
10	Nonmetallic mineral prod ...	-3	33	-18	51	81
12	Fabricated metal products	-23	136	-40	176	490
26	Chemical products	-4	39	8	31	98
31	General merchandise ...	-4	43	-5	48	110
36	Truck transportation	-8	67	8	59	188
39	Other transportation ...	-0	88	0	88	88
50	Rental and leasing services ...	-2	59	-4	63	90
53	Miscellaneous profession ...	-3	101	3	98	150
55	Administrative and ...	-8	25	-6	31	146
58	Ambulatory health care ...	-11	58	30	28	231
60	Nursing and residential ...	-23	158	55	103	508
61	Social assistance	-6	90	61	29	188
64	Accommodation	-4	36	33	3	97
65	Food services and drinking ...	-32	24	81	-57	504

Chapter 7. Clermont County, Ohio

Employment in Clermont County, Ohio, grew from 53,393 in 2005 to 59,403 in 2018, for a change of 6,010, or 11.26%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Clermont County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	6,019	-13	-747	734
vs. Appalachia	180	5,834	888	4,946
vs. Neighbors	-193	6,209	-265	6,474

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Clermont County, Ohio, in comparison to at least one of the three referent regions.

Chapter 7. Clermont County, Ohio

Industry Group Membership for Clermont County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
12	Fabricated metal products	F III c iii	no	yes	yes	yes
23	Paper products	D III c iii	no	yes	yes	yes
24	Printing and related ...	F III c iii	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
31	General merchandise ...	F III c i	no	yes	yes	yes
39	Other transportation ...	E I c iii	no	yes	yes	yes
41	Publishing industries, ...	F III c iii	no	yes	yes	yes
52	Computer systems design ...	B I a i	yes	yes	yes	yes
53	Miscellaneous profession ...	B V b i	yes	no	yes	yes
55	Administrative and ...	A II b iii	yes	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
61	Social assistance	B II a i	yes	yes	yes	yes
63	Amusements, gambling, ...	B II a ii	yes	yes	yes	yes
65	Food services and drinking ...	B I a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Clermont County, Ohio vs. the United States

Groups a, b, and c are from Clermont County, Ohio vs. Appalachia

Chapter 7. Clermont County, Ohio

Groups i, ii, and iii are from Clermont County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Clermont County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Clermont County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Clermont County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Clermont County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

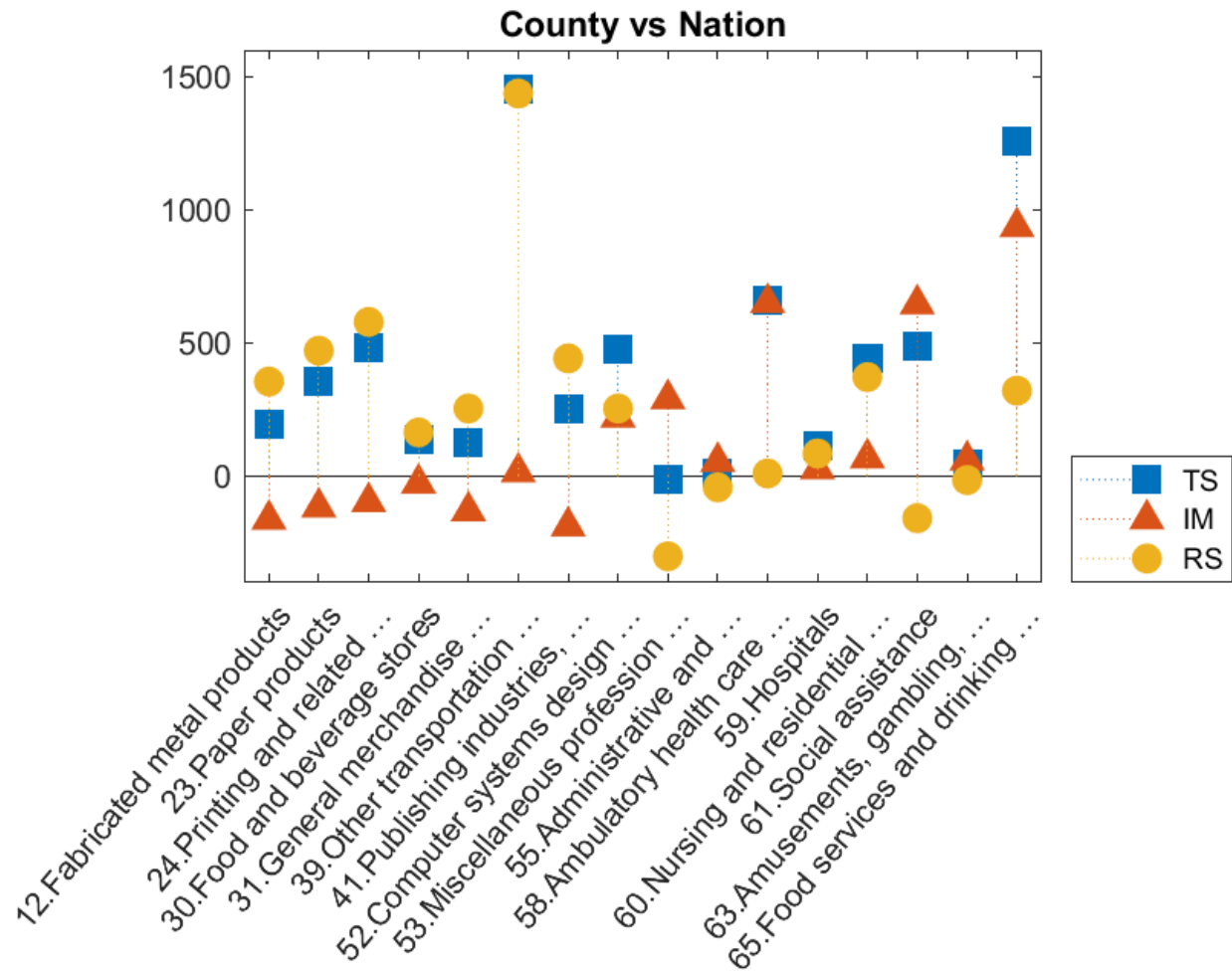
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Clermont County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Clermont County, Ohio vs the U.S.

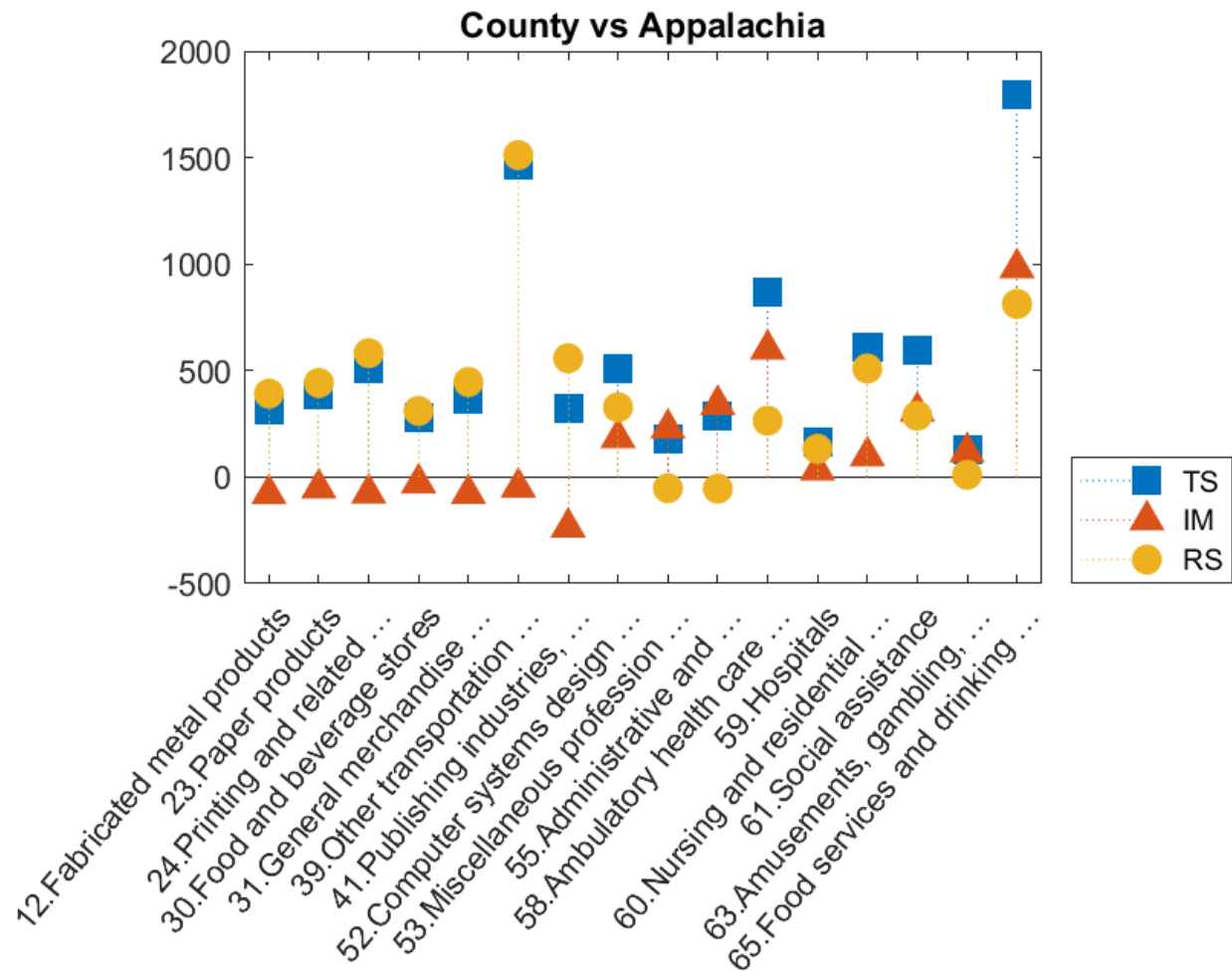


Chapter 7. Clermont County, Ohio

Clermont County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	125	192	-163	355	1,422
23	Paper products	37	354	-117	471	718
24	Printing and related ...	24	482	-97	579	724
30	Food and beverage stores	150	137	-27	164	1,618
31	General merchandise ...	254	123	-131	254	2,632
39	Other transportation ...	12	1,452	15	1,437	1,574
41	Publishing industries, ...	70	254	-188	442	941
52	Computer systems design ...	38	475	221	254	848
53	Miscellaneous profession ...	194	-11	290	-301	1,901
55	Administrative and ...	281	12	54	-42	2,789
58	Ambulatory health care ...	209	661	651	10	2,728
59	Hospitals	55	112	27	85	657
60	Nursing and residential ...	174	440	68	372	2,156
61	Social assistance	111	488	646	-158	1,584
63	Amusements, gambling, ...	86	45	60	-15	898
65	Food services and drinking ...	554	1,257	936	321	6,721

Selected SSA Components for Clermont County, Ohio vs the Appalachian Region

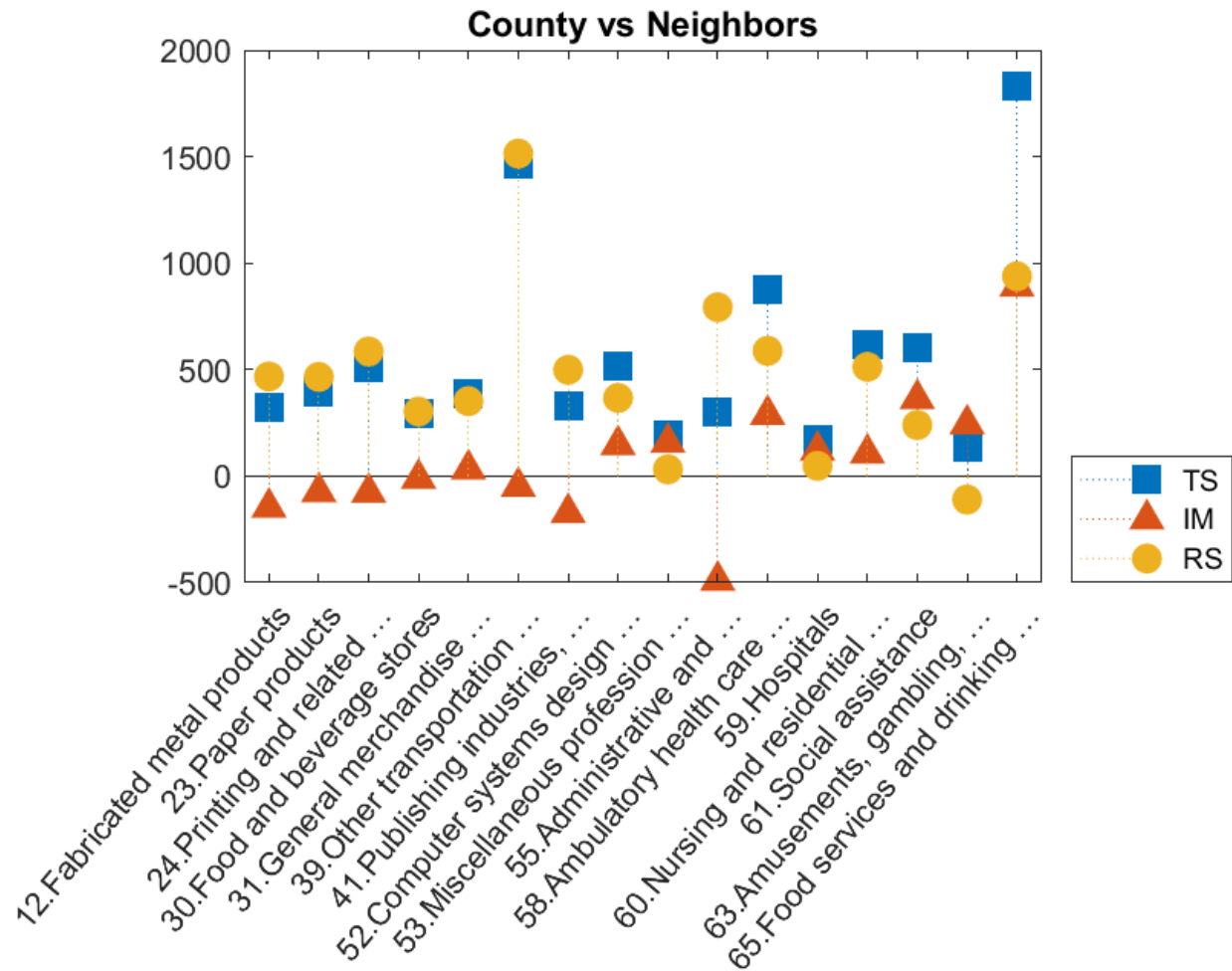


Chapter 7. Clermont County, Ohio

Selected SSA Components for Clermont County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	4	313	-79	392	1,422
23	Paper products	1	390	-52	442	718
24	Printing and related ...	1	506	-76	582	724
30	Food and beverage stores	5	283	-28	311	1,618
31	General merchandise ...	8	369	-78	447	2,632
39	Other transportation ...	0	1,464	-48	1,512	1,574
41	Publishing industries, ...	2	322	-236	558	941
52	Computer systems design ...	1	512	184	328	848
53	Miscellaneous profession ...	6	177	229	-52	1,901
55	Administrative and ...	8	286	340	-54	2,789
58	Ambulatory health care ...	6	865	600	265	2,728
59	Hospitals	2	166	33	133	657
60	Nursing and residential ...	5	609	99	510	2,156
61	Social assistance	3	596	308	288	1,584
63	Amusements, gambling, ...	3	129	118	11	898
65	Food services and drinking ...	17	1,795	982	813	6,721

Selected SSA Components for Clermont County, Ohio vs Neighbors



Chapter 7. Clermont County, Ohio

Selected SSA Components for Clermont County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	-4	321	-147	468	1,422
23	Paper products	-1	392	-74	466	718
24	Printing and related ...	-1	508	-77	585	724
30	Food and beverage stores	-5	292	-11	303	1,618
31	General merchandise ...	-8	385	33	352	2,632
39	Other transportation ...	-0	1,465	-49	1,514	1,574
41	Publishing industries, ...	-2	327	-172	499	941
52	Computer systems design ...	-1	514	147	367	848
53	Miscellaneous profession ...	-6	190	158	32	1,901
55	Administrative and ...	-9	303	-490	793	2,789
58	Ambulatory health care ...	-7	877	289	588	2,728
59	Hospitals	-2	169	121	48	657
60	Nursing and residential ...	-6	620	107	513	2,156
61	Social assistance	-4	603	363	240	1,584
63	Amusements, gambling, ...	-3	134	244	-110	898
65	Food services and drinking ...	-18	1,829	891	938	6,721

Chapter 8. Columbiana County, Ohio

Employment in Columbiana County, Ohio, declined from 33,537 in 2005 to 29,604 in 2018, for a change of -3,933, or -11.73%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Columbiana County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	3,778	-7,711	-262	-7,449
vs. Appalachia	111	-4,050	-139	-3,911
vs. Neighbors	-2,790	-1,146	207	-1,353

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Columbiana County, Ohio, in comparison to at least one of the three referent regions.

Chapter 8. Columbiana County, Ohio

Industry Group Membership for Columbiana County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
11	Primary metals	F III c iii	no	yes	yes	yes
16	Motor vehicles, bodies ...	C III a i	yes	yes	yes	yes
20	Food and beverage ...	E I c i	no	yes	yes	yes
58	Ambulatory health care ...	B V b ii	yes	no	yes	yes
61	Social assistance	B I a ii	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Columbiana County, Ohio vs. the United States

Groups a, b, and c are from Columbiana County, Ohio vs. Appalachia

Groups i, ii, and iii are from Columbiana County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Columbiana County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Columbiana County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Columbiana County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Columbiana County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

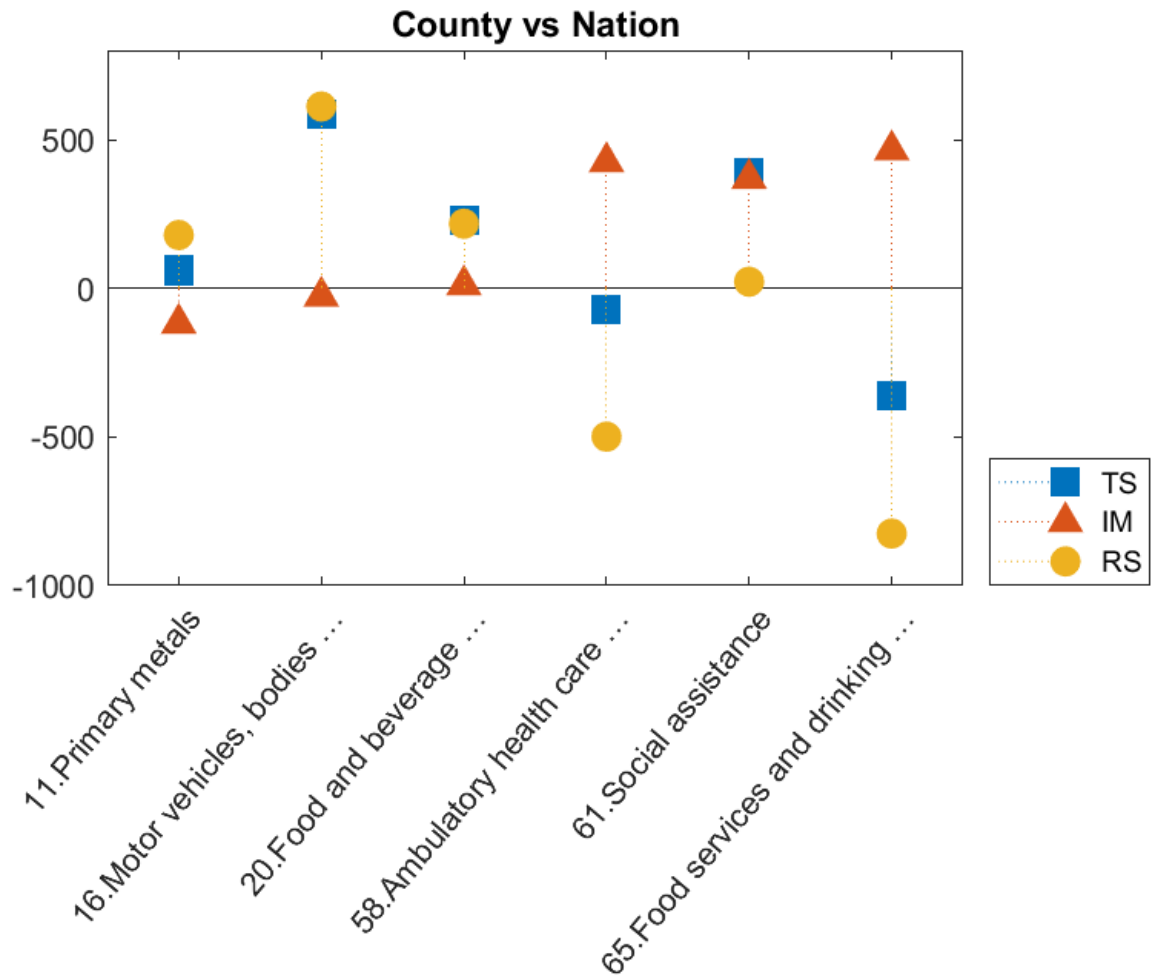
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Columbiana County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Columbiana County, Ohio vs the U.S.

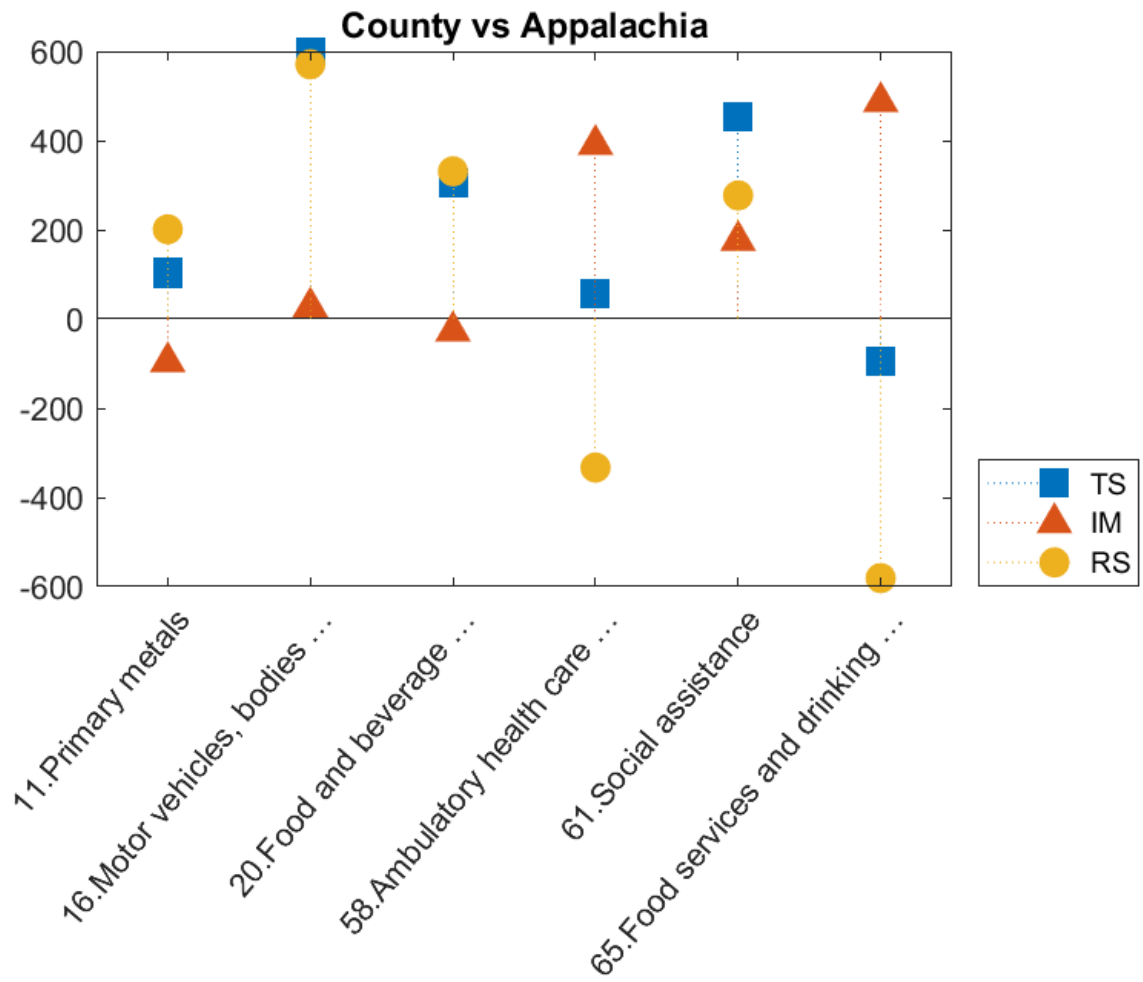


Chapter 8. Columbiana County, Ohio

Columbiana County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	45	61	-118	179	505
16	Motor vehicles, bodies ...	15	584	-27	611	733
20	Food and beverage ...	78	228	11	217	997
58	Ambulatory health care ...	136	-74	425	-499	1,272
61	Social assistance	63	391	369	22	1,018
65	Food services and drinking ...	275	-360	465	-825	2,353

Selected SSA Components for Columbiana County, Ohio vs the Appalachian Region

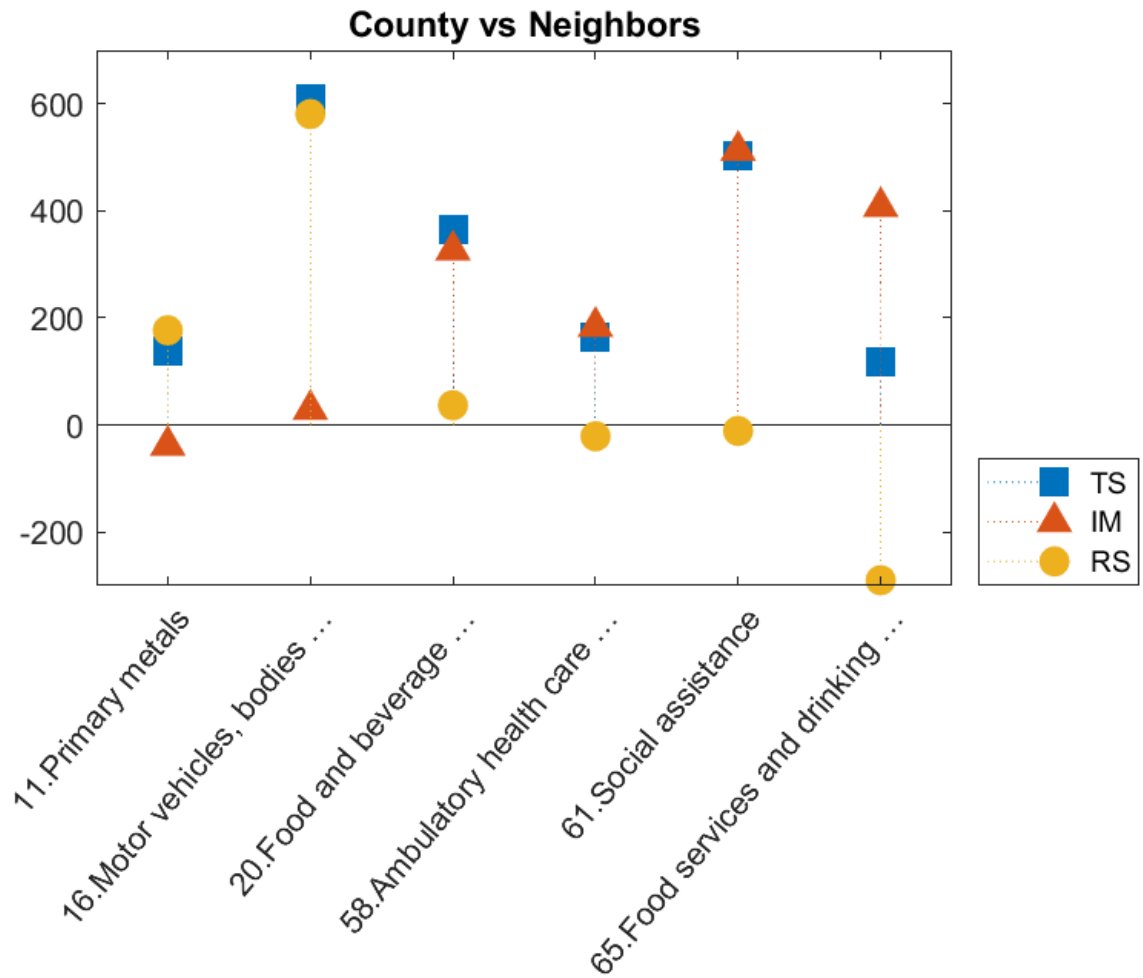


Chapter 8. Columbiana County, Ohio

Selected SSA Components for Columbiana County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	1	105	-96	201	505
16	Motor vehicles, bodies ...	0	598	27	571	733
20	Food and beverage ...	2	304	-27	331	997
58	Ambulatory health care ...	4	58	391	-333	1,272
61	Social assistance	2	453	176	277	1,018
65	Food services and drinking ...	8	-94	487	-581	2,353

Selected SSA Components for Columbiana County, Ohio vs Neighbors



Chapter 8. Columbiana County, Ohio

Selected SSA Components for Columbiana County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	-33	139	-38	177	505
16	Motor vehicles, bodies ...	-11	610	29	581	733
20	Food and beverage ...	-57	364	327	37	997
58	Ambulatory health care ...	-101	163	184	-21	1,272
61	Social assistance	-47	502	513	-11	1,018
65	Food services and drinking ...	-203	118	408	-290	2,353

Chapter 9. Coshocton County, Ohio

Employment in Coshocton County, Ohio, declined from 12,834 in 2005 to 10,161 in 2018, for a change of -2,673, or -20.83%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Coshocton County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,449	-4,115	-656	-3,459
vs. Appalachia	43	-2,717	-253	-2,464
vs. Neighbors	-0	-2,671	-221	-2,450

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Coshocton County, Ohio, in comparison to at least one of the three referent regions.

Chapter 9. Coshocton County, Ohio

Industry Group Membership for Coshocton County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
20	Food and beverage ...	E I c i	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
60	Nursing and residential ...	E II a iii	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Coshocton County, Ohio vs. the United States

Groups a, b, and c are from Coshocton County, Ohio vs. Appalachia

Groups i, ii, and iii are from Coshocton County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Coshocton County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Coshocton County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Coshocton County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Coshocton County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

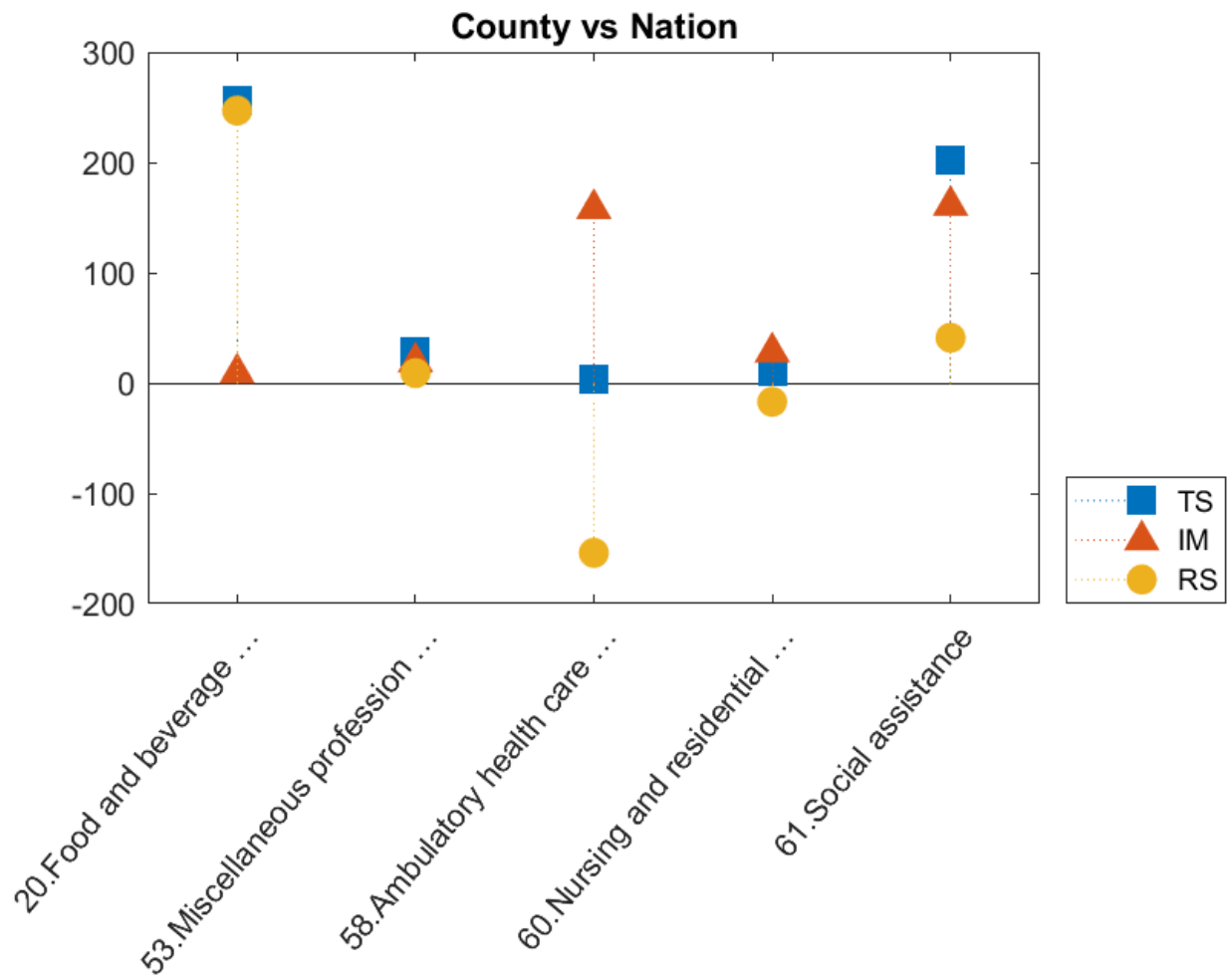
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Coshocton County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Coshocton County, Ohio vs the U.S.

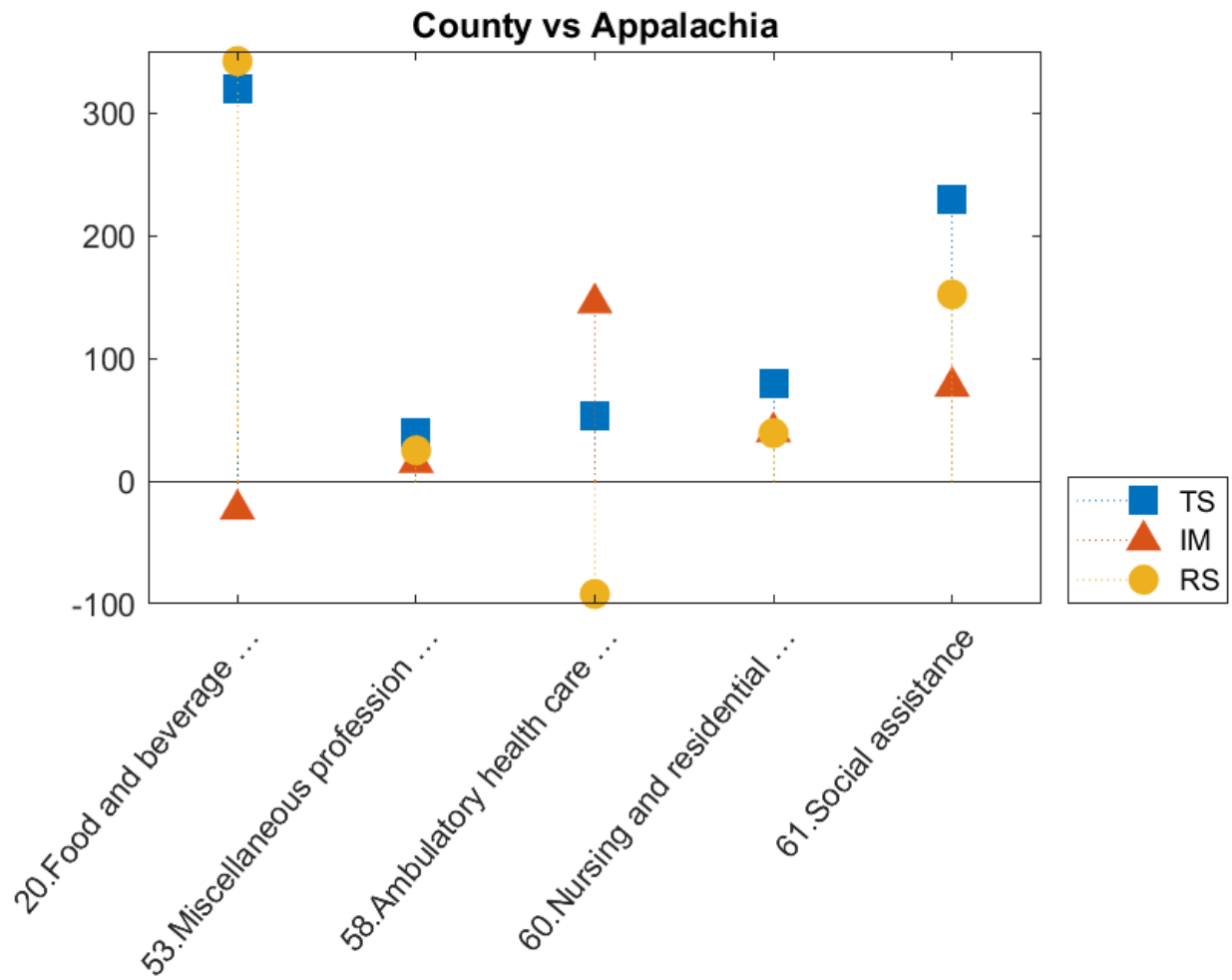


Chapter 9. Coshocton County, Ohio

Coshocton County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	65	256	9	247	899
53	Miscellaneous profession ...	13	28	19	9	153
58	Ambulatory health care ...	51	4	158	-154	504
60	Nursing and residential ...	71	11	28	-17	707
61	Social assistance	28	202	161	41	475

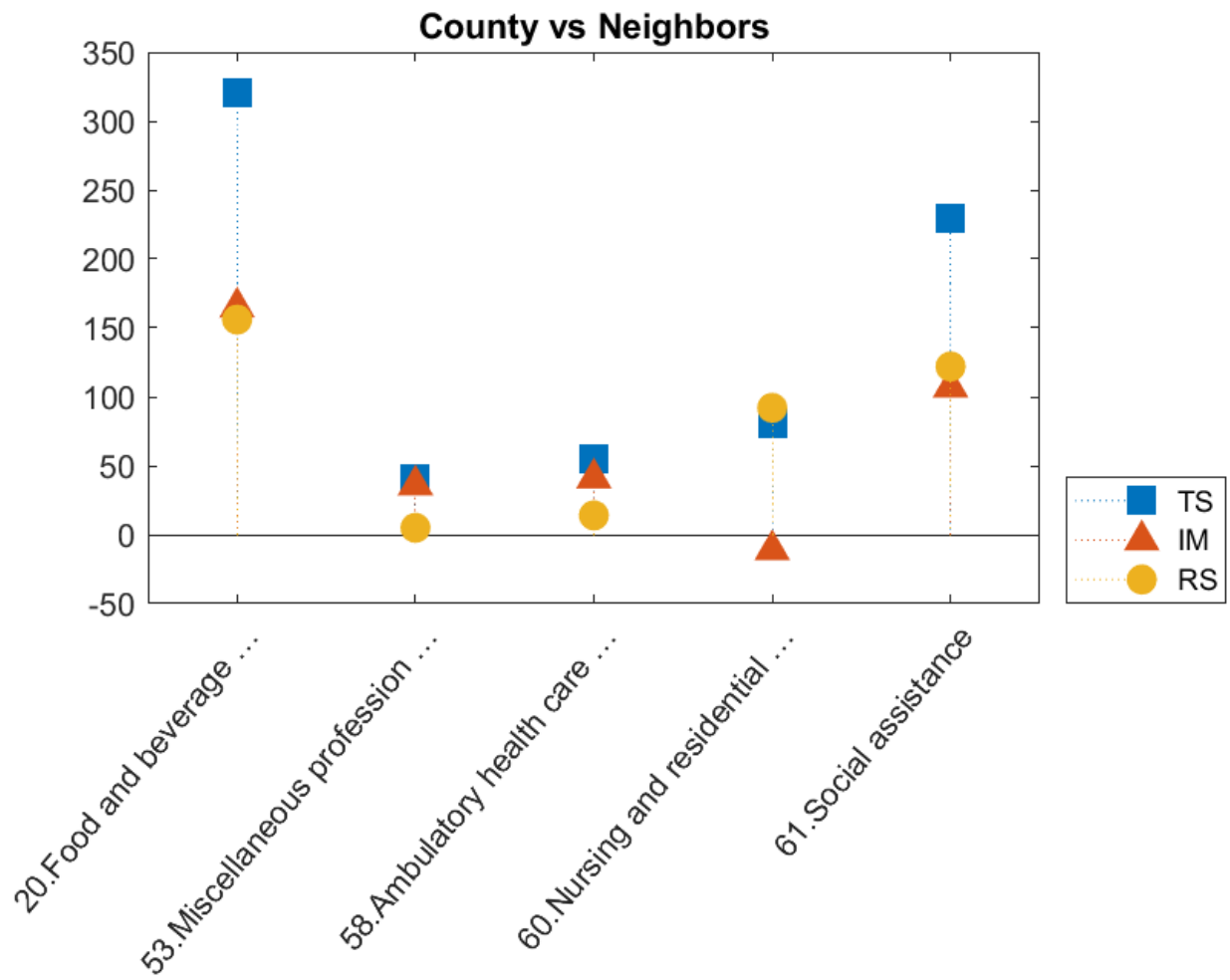
Selected SSA Components for Coshocton County, Ohio vs the Appalachian Region



**Selected SSA Components for Coshocton County, Ohio vs the Appalachian
Region**

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	2	319	-23	342	899
53	Miscellaneous profession ...	0	40	15	25	153
58	Ambulatory health care ...	2	53	145	-92	504
60	Nursing and residential ...	2	79	40	39	707
61	Social assistance	1	229	77	152	475

Selected SSA Components for Coshocton County, Ohio vs Neighbors



**Selected SSA Components for Coshocton County, Ohio vs Neighbors for
Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	-0	321	165	156	899
53	Miscellaneous profession ...	-0	41	36	5	153
58	Ambulatory health care ...	-0	55	41	14	504
60	Nursing and residential ...	-0	81	-11	92	707
61	Social assistance	-0	229	107	122	475

Chapter 10. Gallia County, Ohio

Employment in Gallia County, Ohio, declined from 13,005 in 2005 to 11,142 in 2018, for a change of -1,863, or -14.33%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Gallia County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,469	-3,327	156	-3,483
vs. Appalachia	43	-1,908	407	-2,315
vs. Neighbors	-1,092	-769	198	-967

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Gallia County, Ohio, in comparison to at least one of the three referent regions.

Chapter 10. Gallia County, Ohio

Industry Group Membership for Gallia County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
16	Motor vehicles, bodies ...	C III a i	yes	yes	yes	yes
54	Management of companies ...	A I a i	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Gallia County, Ohio vs. the United States

Groups a, b, and c are from Gallia County, Ohio vs. Appalachia

Groups i, ii, and iii are from Gallia County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Gallia County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Gallia County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Gallia County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Gallia County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

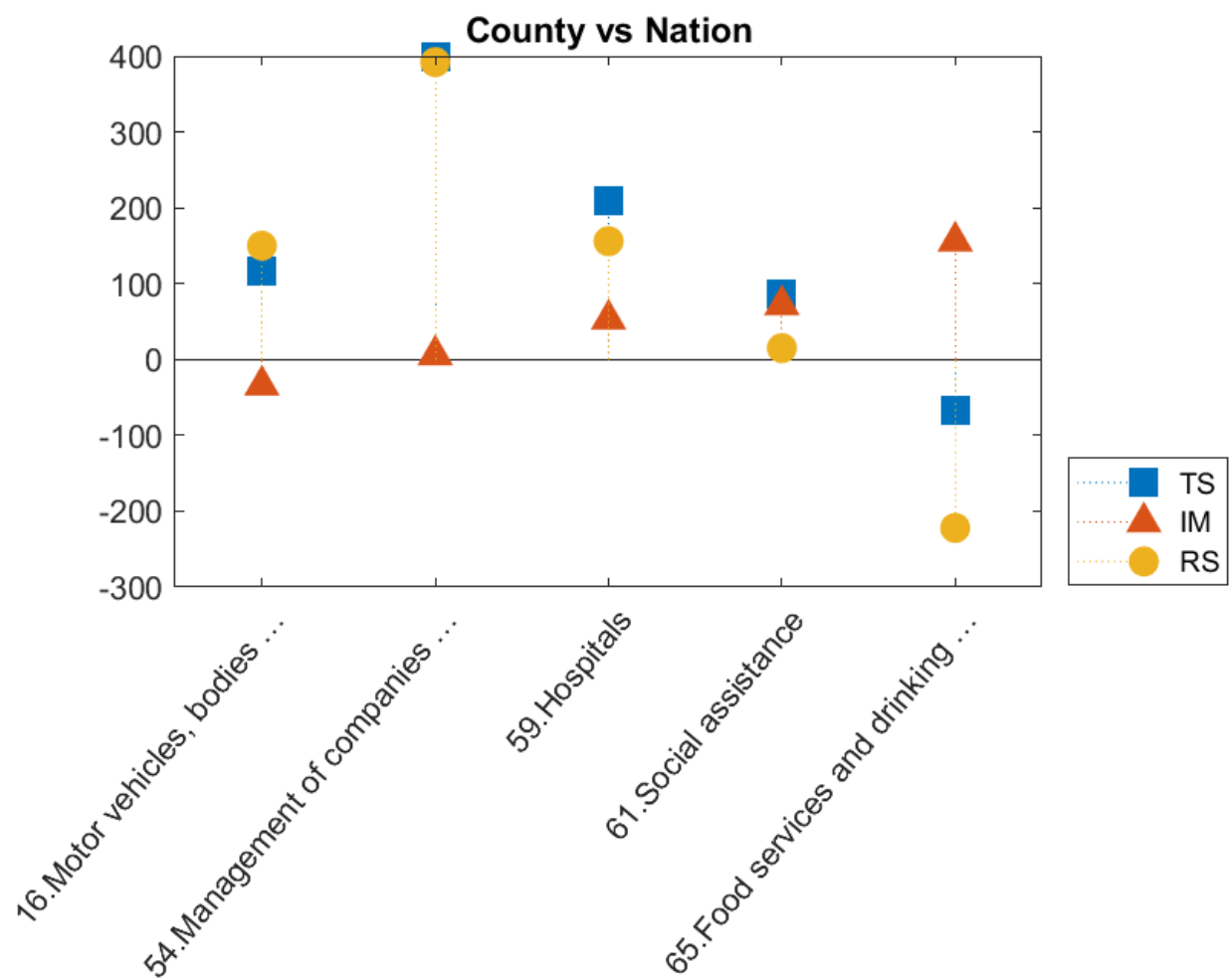
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Gallia County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Gallia County, Ohio vs the U.S.

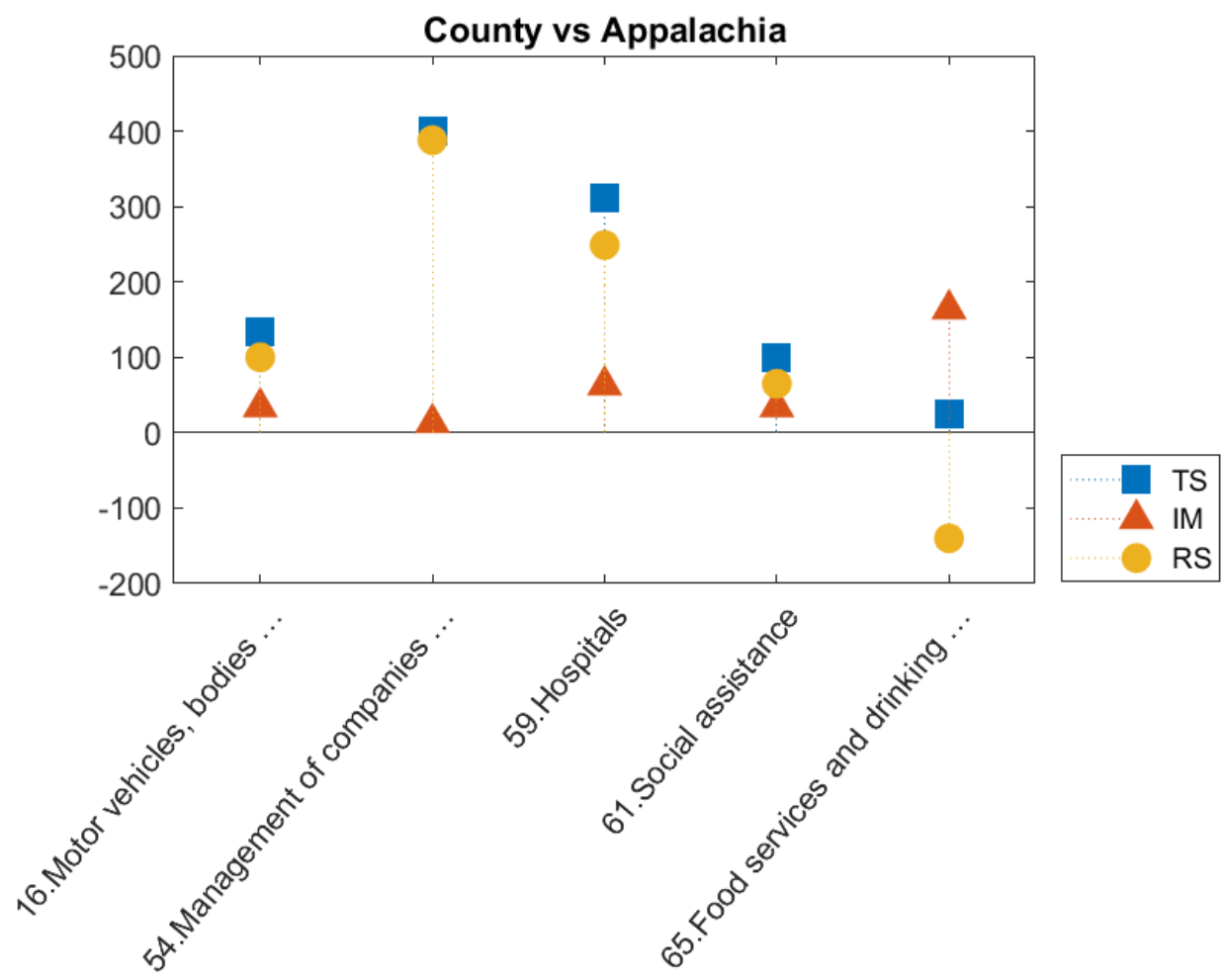


Chapter 10. Gallia County, Ohio

Gallia County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	19	116	-34	150	302
54	Management of companies ...	3	398	6	392	425
59	Hospitals	107	209	53	156	1,262
61	Social assistance	12	87	72	15	209
65	Food services and drinking ...	92	-66	156	-222	844

Selected SSA Components for Gallia County, Ohio vs the Appalachian Region

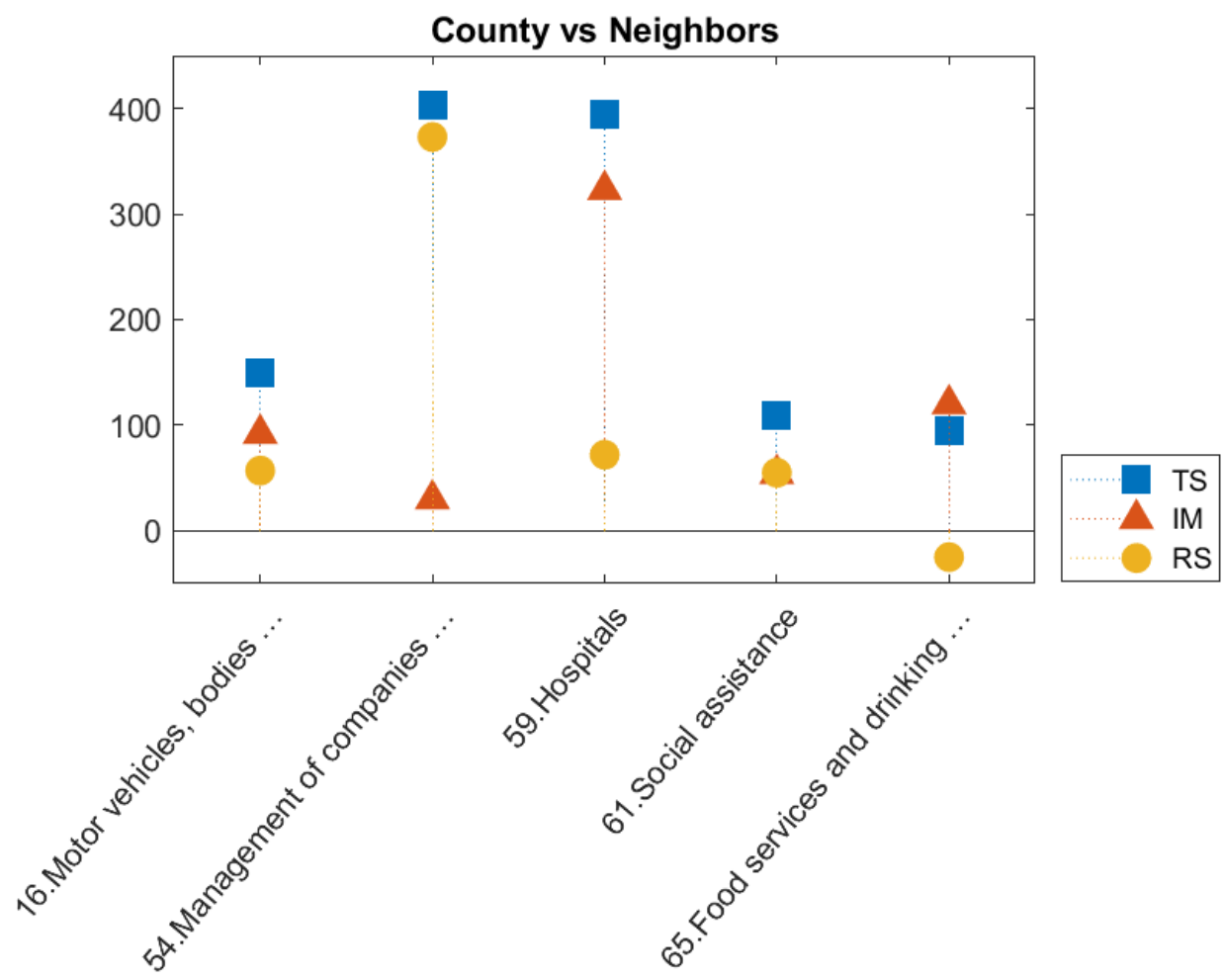


Chapter 10. Gallia County, Ohio

Selected SSA Components for Gallia County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	1	134	34	100	302
54	Management of companies ...	0	401	13	388	425
59	Hospitals	3	312	63	249	1,262
61	Social assistance	0	99	34	65	209
65	Food services and drinking ...	3	24	164	-140	844

Selected SSA Components for Gallia County, Ohio vs Neighbors



Chapter 10. Gallia County, Ohio

Selected SSA Components for Gallia County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	-14	149	92	57	302
54	Management of companies ...	-2	403	30	373	425
59	Hospitals	-79	395	323	72	1,262
61	Social assistance	-9	109	54	55	209
65	Food services and drinking ...	-69	95	120	-25	844

Chapter 11. Guernsey County, Ohio

Employment in Guernsey County, Ohio, declined from 15,464 in 2005 to 15,335 in 2018, for a change of -129, or -0.83%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Guernsey County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,744	-1,873	383	-2,256
vs. Appalachia	46	-184	446	-630
vs. Neighbors	-1,008	888	664	224

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Guernsey County, Ohio, in comparison to at least one of the three referent regions.

Chapter 11. Guernsey County, Ohio

Industry Group Membership for Guernsey County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
06	Support activities for ...	A I a i	yes	yes	yes	yes
08	Construction	F III c i	no	yes	yes	yes
16	Motor vehicles, bodies ...	C I a i	yes	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B II a ii	yes	yes	yes	yes
58	Ambulatory health care ...	B V b ii	yes	no	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
61	Social assistance	B II a i	yes	yes	yes	yes
64	Accommodation	A V b ii	yes	no	yes	yes
65	Food services and drinking ...	B II b i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Guernsey County, Ohio vs. the United States

Groups a, b, and c are from Guernsey County, Ohio vs. Appalachia

Groups i, ii, and iii are from Guernsey County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Guernsey County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Guernsey County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Guernsey County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Guernsey County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

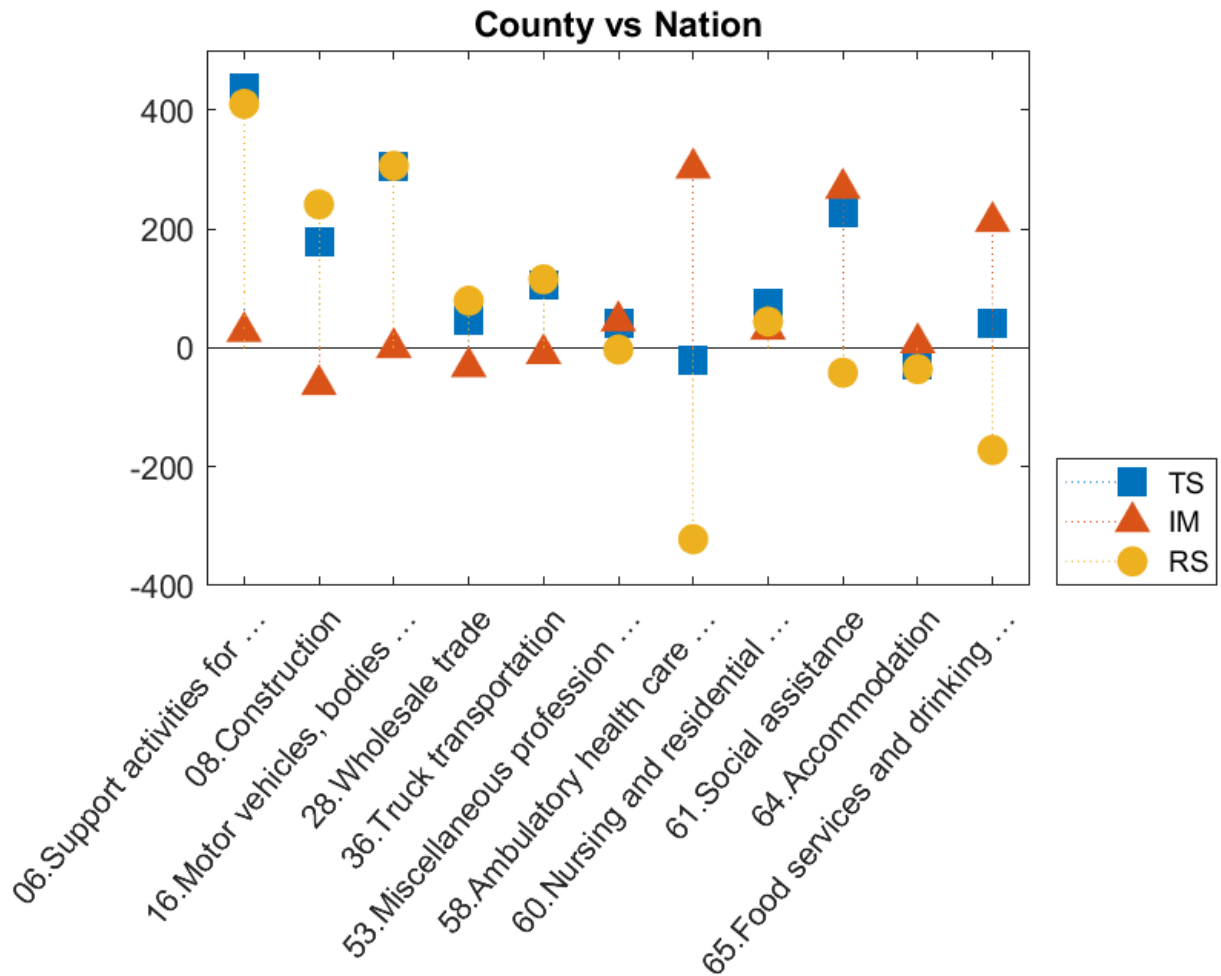
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Guernsey County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Guernsey County, Ohio vs the U.S.

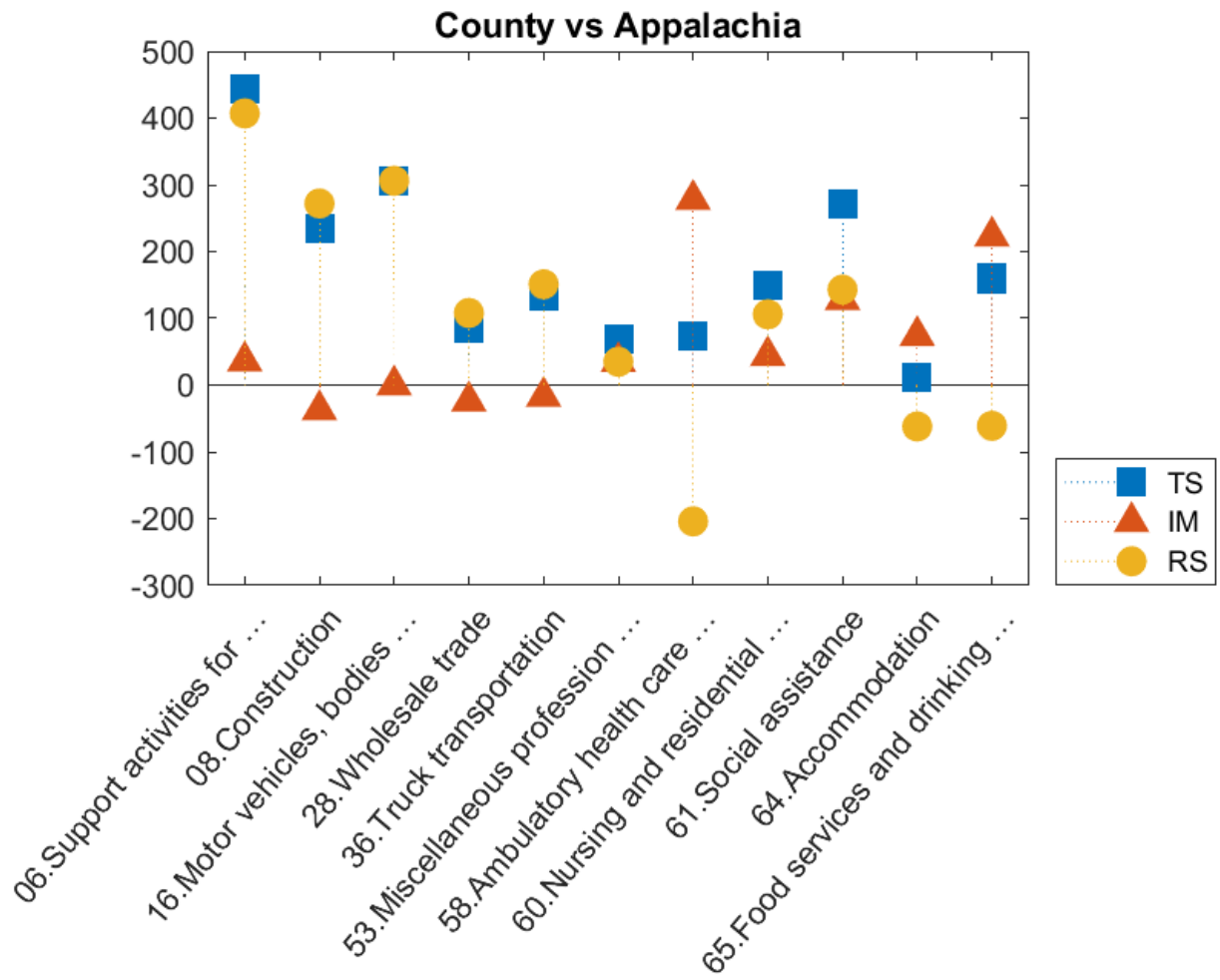


Chapter 11. Guernsey County, Ohio

Guernsey County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	7	437	27	410	509
08	Construction	58	179	-62	241	751
16	Motor vehicles, bodies ...	0	306	0	306	306
28	Wholesale trade	38	47	-32	79	421
36	Truck transportation	30	105	-10	115	399
53	Miscellaneous profession ...	30	42	45	-3	337
58	Ambulatory health care ...	97	-20	302	-322	937
60	Nursing and residential ...	78	75	31	44	845
61	Social assistance	46	226	268	-42	682
64	Accommodation	41	-28	8	-36	376
65	Food services and drinking ...	126	40	212	-172	1,280

Selected SSA Components for Guernsey County, Ohio vs the Appalachian Region

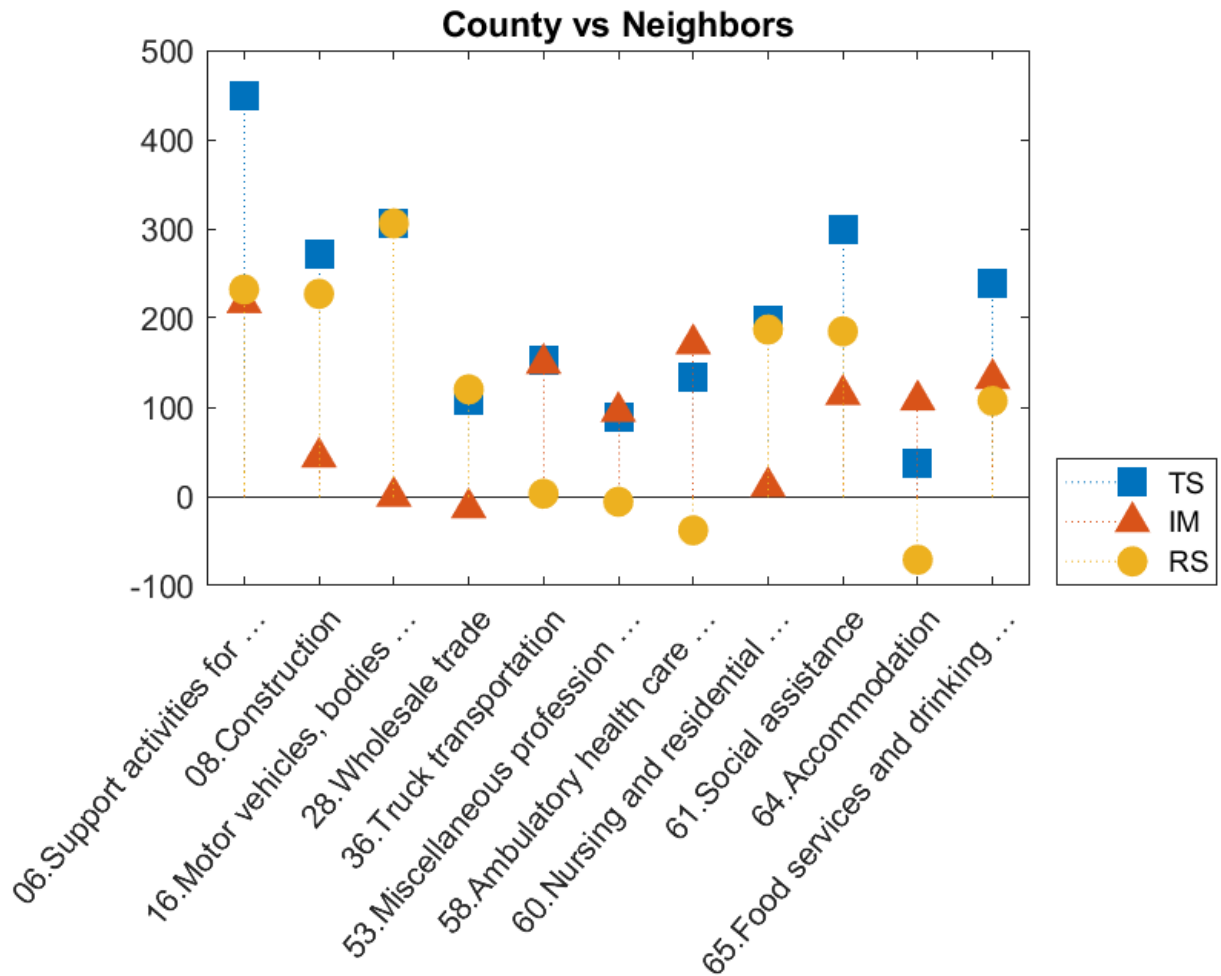


Chapter 11. Guernsey County, Ohio

Selected SSA Components for Guernsey County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	0	443	36	407	509
08	Construction	2	235	-37	272	751
16	Motor vehicles, bodies ...	0	306	0	306	306
28	Wholesale trade	1	84	-24	108	421
36	Truck transportation	1	134	-17	151	399
53	Miscellaneous profession ...	1	70	35	35	337
58	Ambulatory health care ...	3	74	278	-204	937
60	Nursing and residential ...	2	150	44	106	845
61	Social assistance	1	271	128	143	682
64	Accommodation	1	12	74	-62	376
65	Food services and drinking ...	4	162	223	-61	1,280

Selected SSA Components for Guernsey County, Ohio vs Neighbors



Chapter 11. Guernsey County, Ohio

Selected SSA Components for Guernsey County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	-4	449	217	232	509
08	Construction	-34	271	44	227	751
16	Motor vehicles, bodies ...	-0	306	0	306	306
28	Wholesale trade	-22	107	-13	120	421
36	Truck transportation	-17	152	149	3	399
53	Miscellaneous profession ...	-17	89	95	-6	337
58	Ambulatory health care ...	-56	133	171	-38	937
60	Nursing and residential ...	-45	198	11	187	845
61	Social assistance	-27	299	114	185	682
64	Accommodation	-24	37	108	-71	376
65	Food services and drinking ...	-73	239	132	107	1,280

Chapter 12. Harrison County, Ohio

Employment in Harrison County, Ohio, declined from 4,084 in 2005 to 3,861 in 2018, for a change of -223, or -5.46%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Harrison County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	462	-683	-258	-425
vs. Appalachia	8	-236	-209	-27
vs. Neighbors	-275	51	-17	68

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Harrison County, Ohio, in comparison to at least one of the three referent regions.

Chapter 12. Harrison County, Ohio

Industry Group Membership for Harrison County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
06	Support activities for ...	A I a ii	yes	yes	yes	yes
07	Utilities	F III c i	no	yes	yes	yes
08	Construction	F III c i	no	yes	yes	yes
13	Machinery	F III c iii	no	yes	yes	yes
26	Chemical products	F III c i	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
31	General merchandise ...	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
38	Pipeline transportation	E I c iii	no	yes	yes	yes
49	Real estate	F I a i	no	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
61	Social assistance	B V e ii	yes	no	no	yes
66	Other services, exc. gov ...	F III c iii	no	yes	yes	yes
68	Government	F III a i	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Harrison County, Ohio vs. the United States

Groups a, b, and c are from Harrison County, Ohio vs. Appalachia

Groups i, ii, and iii are from Harrison County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Harrison County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Harrison County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Harrison County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Harrison County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

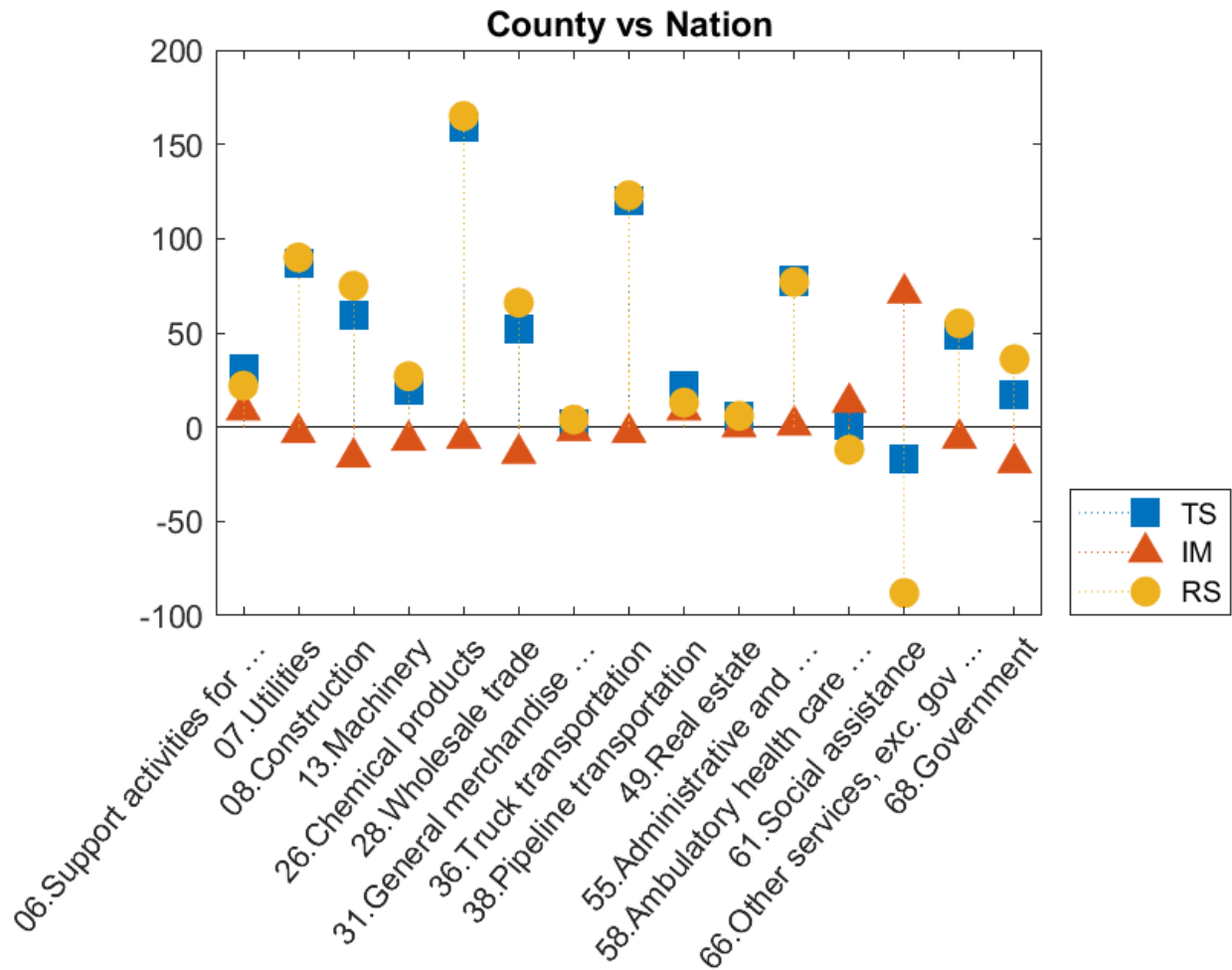
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Harrison County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Harrison County, Ohio vs the U.S.

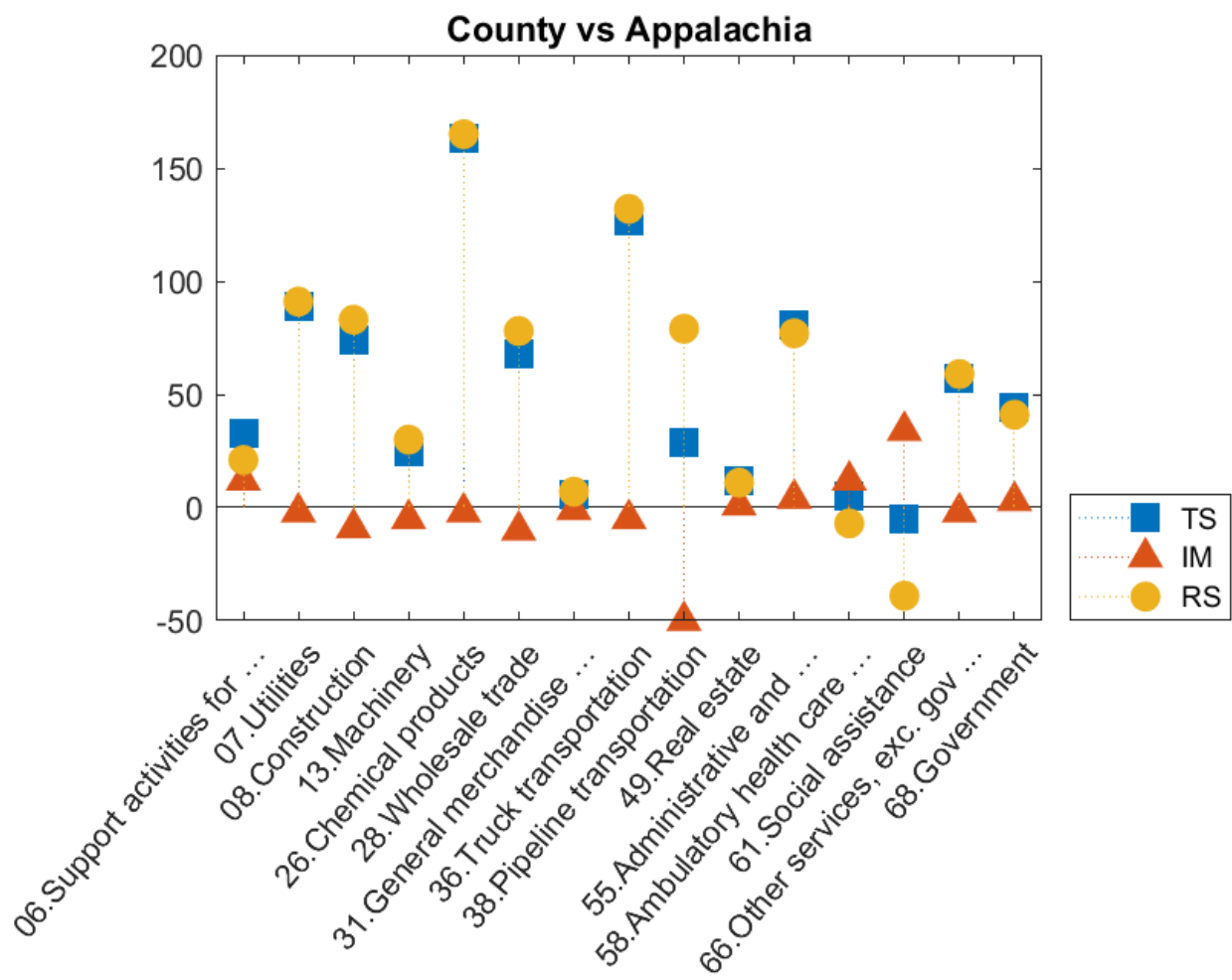


Chapter 12. Harrison County, Ohio

Harrison County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	2	31	9	22	55
07	Utilities	3	87	-3	90	117
08	Construction	15	59	-16	75	205
13	Machinery	5	20	-7	27	65
26	Chemical products	4	159	-6	165	201
28	Wholesale trade	16	52	-14	66	212
31	General merchandise ...	4	2	-2	4	41
36	Truck transportation	8	120	-3	123	198
38	Pipeline transportation	7	22	9	13	88
49	Real estate	7	6	-0	6	70
55	Administrative and ...	3	78	1	77	109
58	Ambulatory health care ...	4	1	13	-12	40
61	Social assistance	12	-17	71	-88	103
66	Other services, exc. gov ...	9	49	-6	55	139
68	Government	29	17	-19	36	300

Selected SSA Components for Harrison County, Ohio vs the Appalachian Region

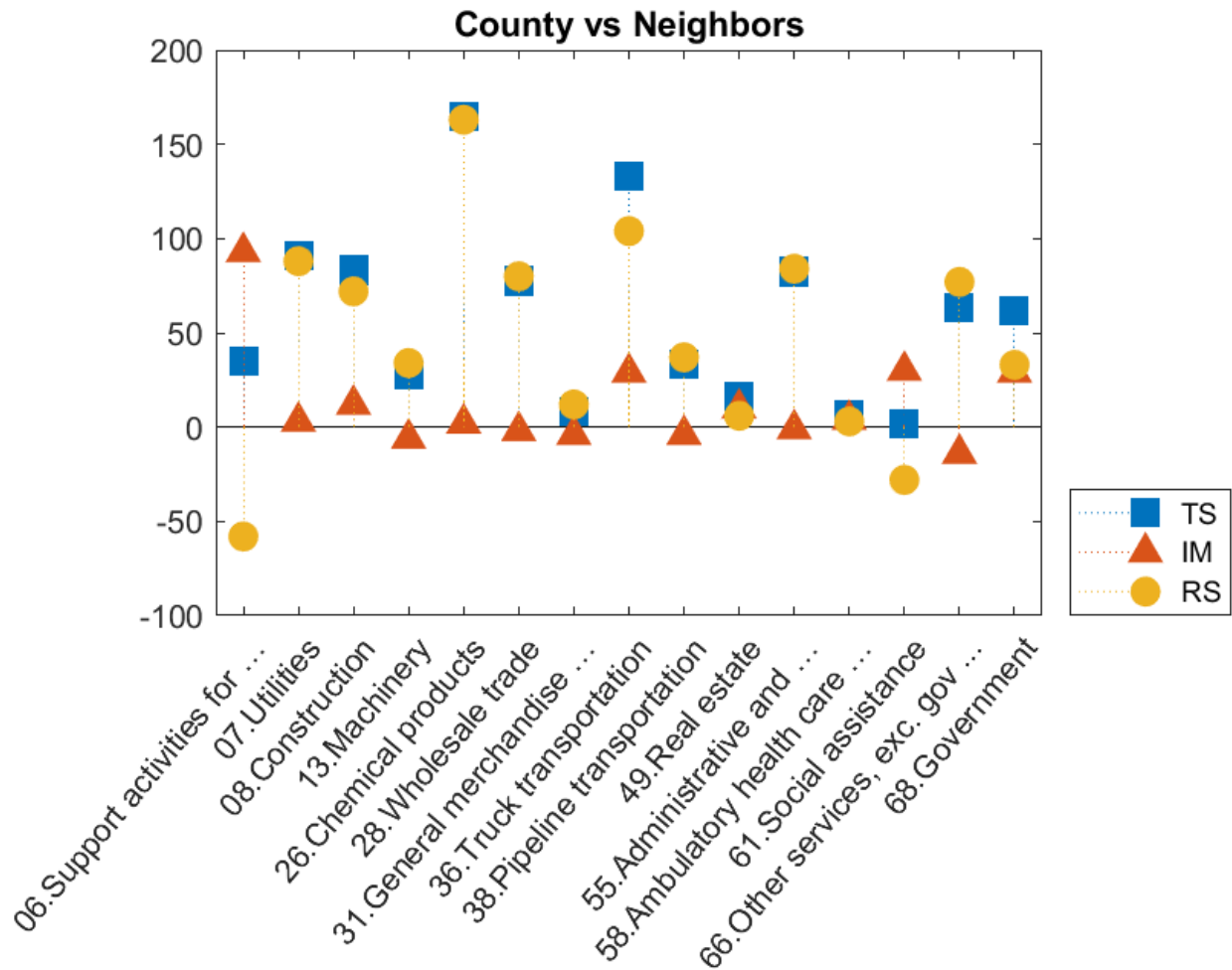


Chapter 12. Harrison County, Ohio

Selected SSA Components for Harrison County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	0	33	12	21	55
07	Utilities	0	89	-2	91	117
08	Construction	0	74	-9	83	205
13	Machinery	0	25	-5	30	65
26	Chemical products	0	163	-2	165	201
28	Wholesale trade	0	68	-10	78	212
31	General merchandise ...	0	6	-1	7	41
36	Truck transportation	0	127	-5	132	198
38	Pipeline transportation	0	29	-50	79	88
49	Real estate	0	12	1	11	70
55	Administrative and ...	0	81	4	77	109
58	Ambulatory health care ...	0	5	12	-7	40
61	Social assistance	0	-5	34	-39	103
66	Other services, exc. gov ...	0	57	-2	59	139
68	Government	1	44	3	41	300

Selected SSA Components for Harrison County, Ohio vs Neighbors



Chapter 12. Harrison County, Ohio

Selected SSA Components for Harrison County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	-1	35	93	-58	55
07	Utilities	-2	91	3	88	117
08	Construction	-9	84	12	72	205
13	Machinery	-3	28	-6	34	65
26	Chemical products	-3	165	2	163	201
28	Wholesale trade	-10	78	-2	80	212
31	General merchandise ...	-2	8	-4	12	41
36	Truck transportation	-5	133	29	104	198
38	Pipeline transportation	-4	33	-4	37	88
49	Real estate	-4	16	10	6	70
55	Administrative and ...	-2	83	-1	84	109
58	Ambulatory health care ...	-2	7	4	3	40
61	Social assistance	-7	2	30	-28	103
66	Other services, exc. gov ...	-6	63	-14	77	139
68	Government	-17	62	29	33	300

Chapter 13. Highland County, Ohio

Employment in Highland County, Ohio, declined from 12,056 in 2005 to 10,580 in 2018, for a change of -1,476, or -12.24%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Highland County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,359	-2,838	-508	-2,330
vs. Appalachia	37	-1,511	51	-1,562
vs. Neighbors	-1,003	-472	-143	-329

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Highland County, Ohio, in comparison to at least one of the three referent regions.

Chapter 13. Highland County, Ohio

Industry Group Membership for Highland County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
17	Other transportation ...	F III c i	no	yes	yes	yes
20	Food and beverage ...	E I a i	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
32	Other retail	F III c i	no	yes	yes	yes
55	Administrative and ...	A I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Highland County, Ohio vs. the United States

Groups a, b, and c are from Highland County, Ohio vs. Appalachia

Groups i, ii, and iii are from Highland County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Highland County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Highland County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Highland County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Highland County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

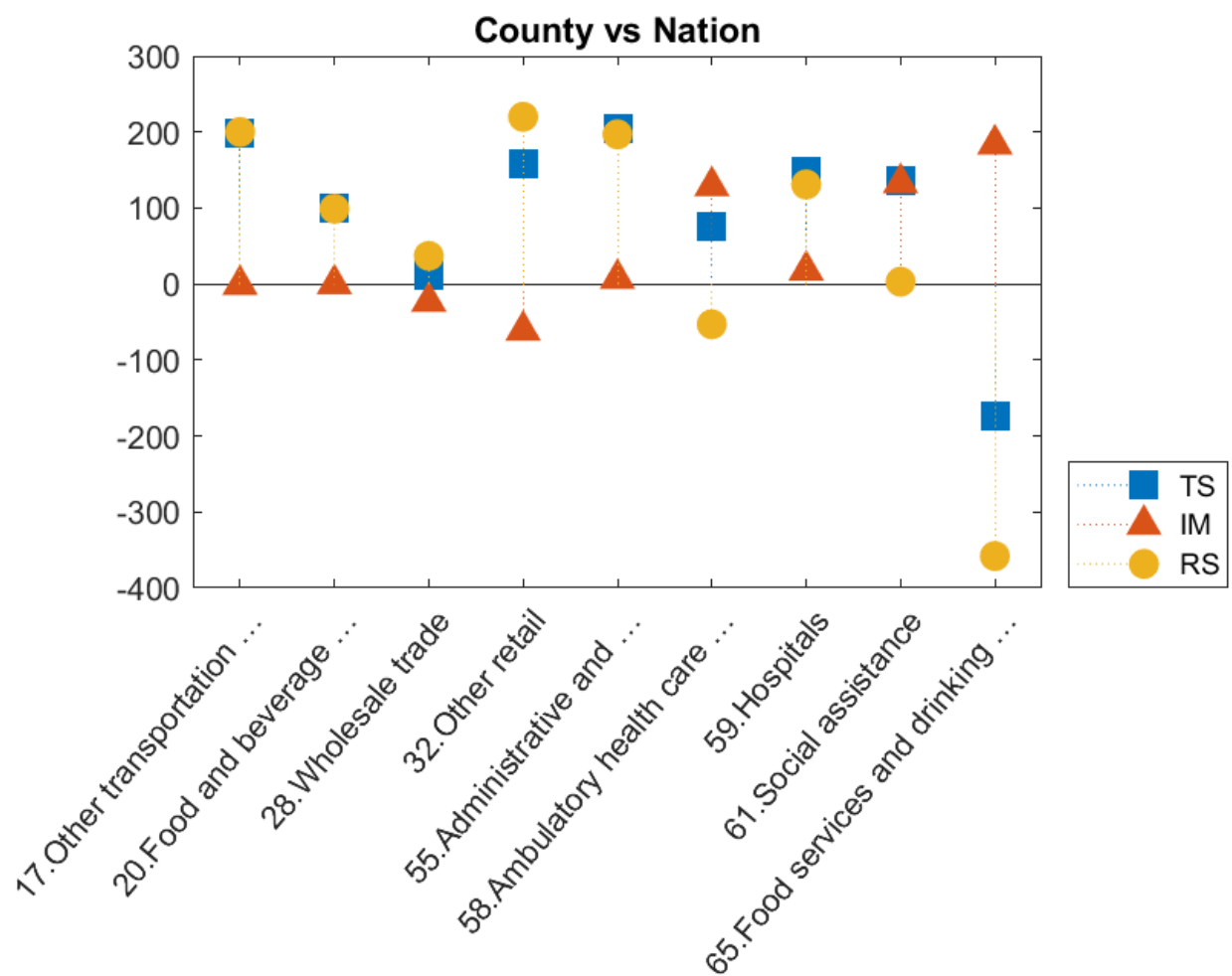
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Highland County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Highland County, Ohio vs the U.S.

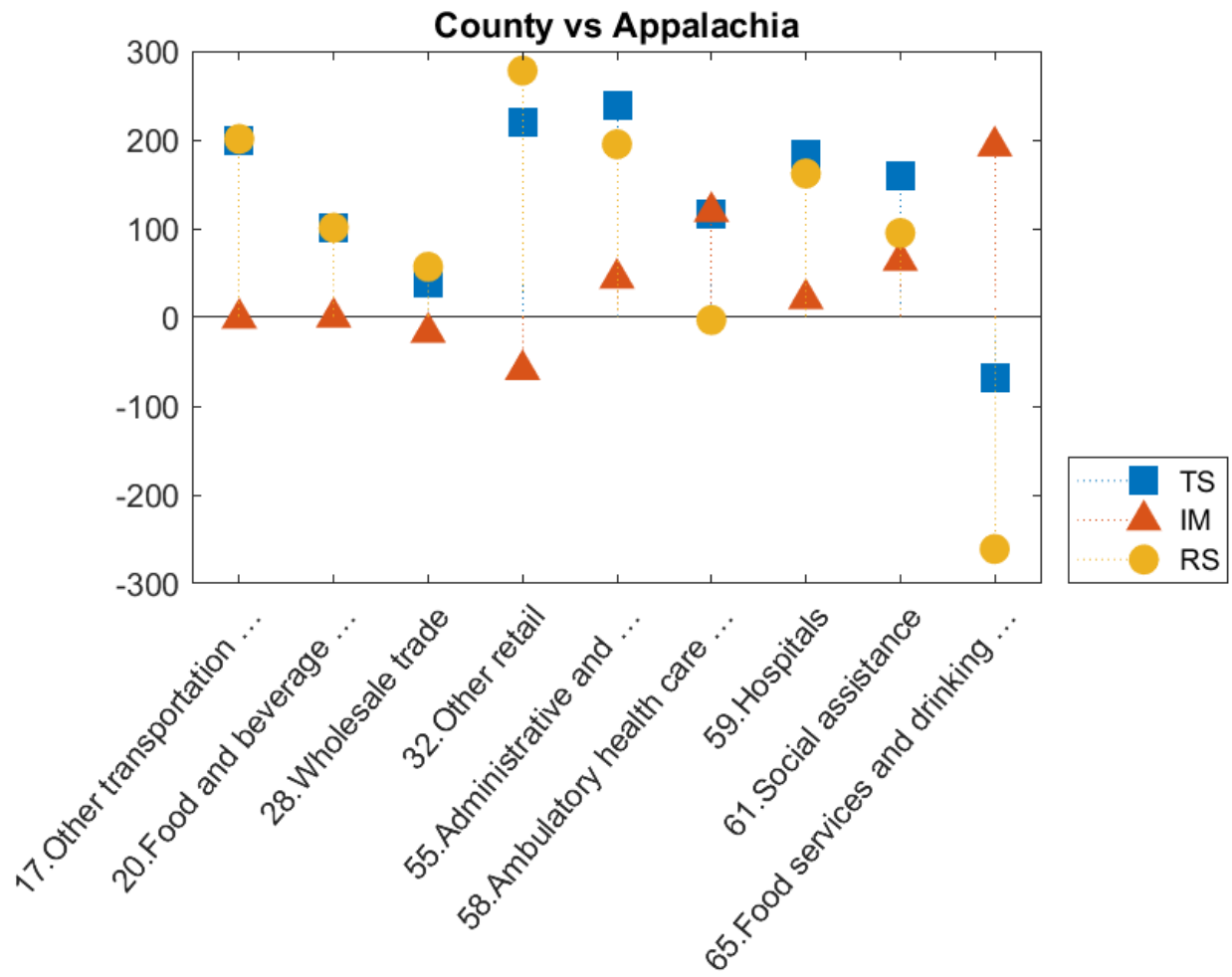


Chapter 13. Highland County, Ohio

Highland County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation ...	1	199	-1	200	209
20	Food and beverage ...	1	99	0	99	109
28	Wholesale trade	27	14	-23	37	279
32	Other retail	62	159	-61	220	766
55	Administrative and ...	37	204	7	197	566
58	Ambulatory health care ...	42	76	129	-53	486
59	Hospitals	36	149	18	131	504
61	Social assistance	23	136	133	3	362
65	Food services and drinking ...	109	-174	184	-358	901

Selected SSA Components for Highland County, Ohio vs the Appalachian Region

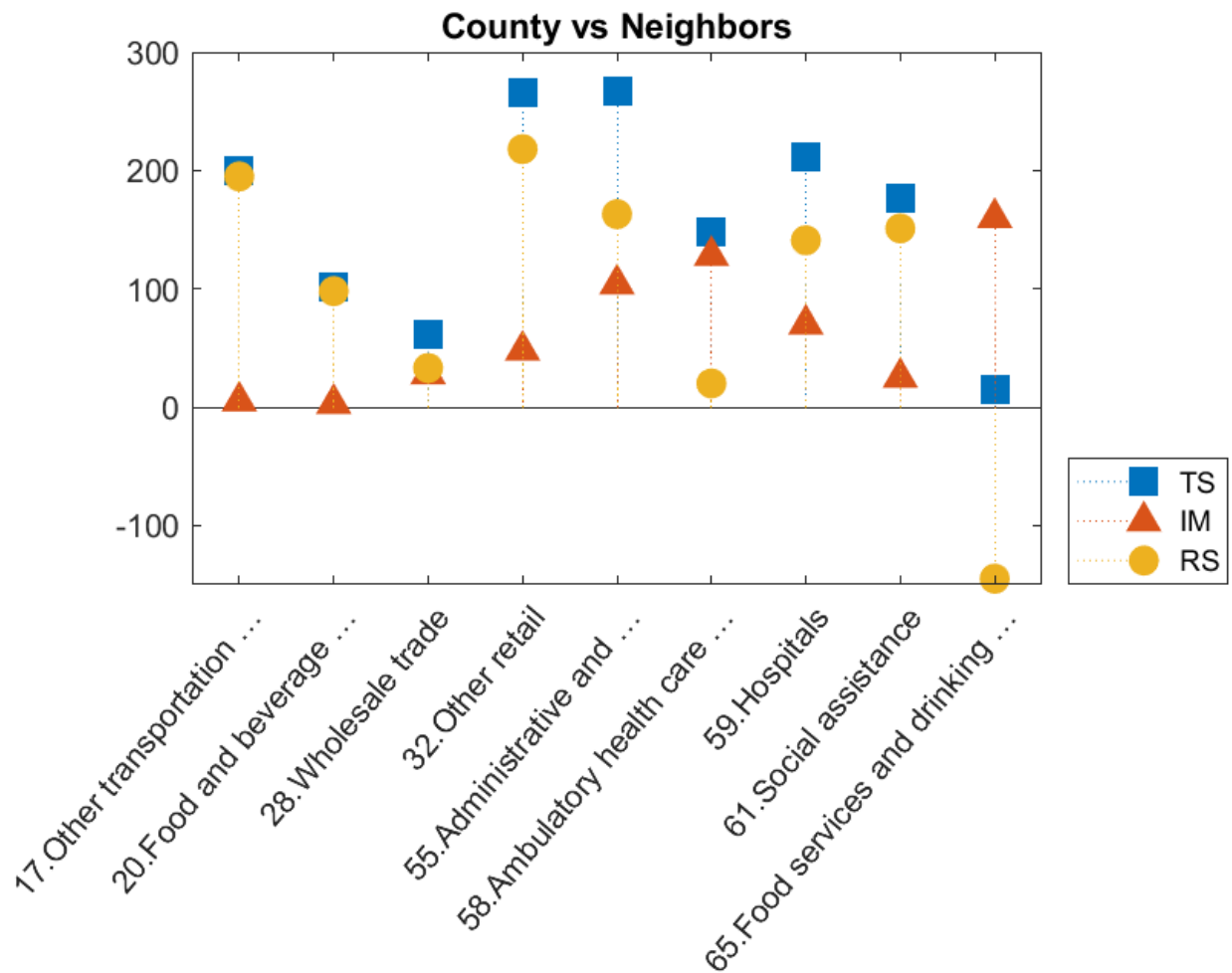


Chapter 13. Highland County, Ohio

Selected SSA Components for Highland County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation ...	0	200	-1	201	209
20	Food and beverage ...	0	101	-0	101	109
28	Wholesale trade	1	40	-17	57	279
32	Other retail	2	219	-59	278	766
55	Administrative and ...	1	239	44	195	566
58	Ambulatory health care ...	1	116	119	-3	486
59	Hospitals	1	183	21	162	504
61	Social assistance	1	159	64	95	362
65	Food services and drinking ...	3	-68	193	-261	901

Selected SSA Components for Highland County, Ohio vs Neighbors



Chapter 13. Highland County, Ohio

Selected SSA Components for Highland County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
17	Other transportation ...	-1	200	5	195	209
20	Food and beverage ...	-1	101	3	98	109
28	Wholesale trade	-20	61	28	33	279
32	Other retail	-45	266	48	218	766
55	Administrative and ...	-27	267	104	163	566
58	Ambulatory health care ...	-31	148	128	20	486
59	Hospitals	-26	211	70	141	504
61	Social assistance	-17	176	25	151	362
65	Food services and drinking ...	-80	15	160	-145	901

Chapter 14. Hocking County, Ohio

Employment in Hocking County, Ohio, declined from 7,134 in 2005 to 6,568 in 2018, for a change of -566, or -7.93%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Hocking County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	807	-1,368	-228	-1,140
vs. Appalachia	21	-593	-62	-531
vs. Neighbors	170	-732	-266	-466

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Hocking County, Ohio, in comparison to at least one of the three referent regions.

Chapter 14. Hocking County, Ohio

Industry Group Membership for Hocking County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
12	Fabricated metal products	F III c i	no	yes	yes	yes
19	Miscellaneous manufac ...	F I a i	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
49	Real estate	F I a i	no	yes	yes	yes
53	Miscellaneous profession ...	B I a iii	yes	yes	yes	yes
55	Administrative and ...	A I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
64	Accommodation	A I a ii	yes	yes	yes	yes
65	Food services and drinking ...	B I a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Hocking County, Ohio vs. the United States

Groups a, b, and c are from Hocking County, Ohio vs. Appalachia

Groups i, ii, and iii are from Hocking County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Hocking County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Hocking County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Hocking County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Hocking County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

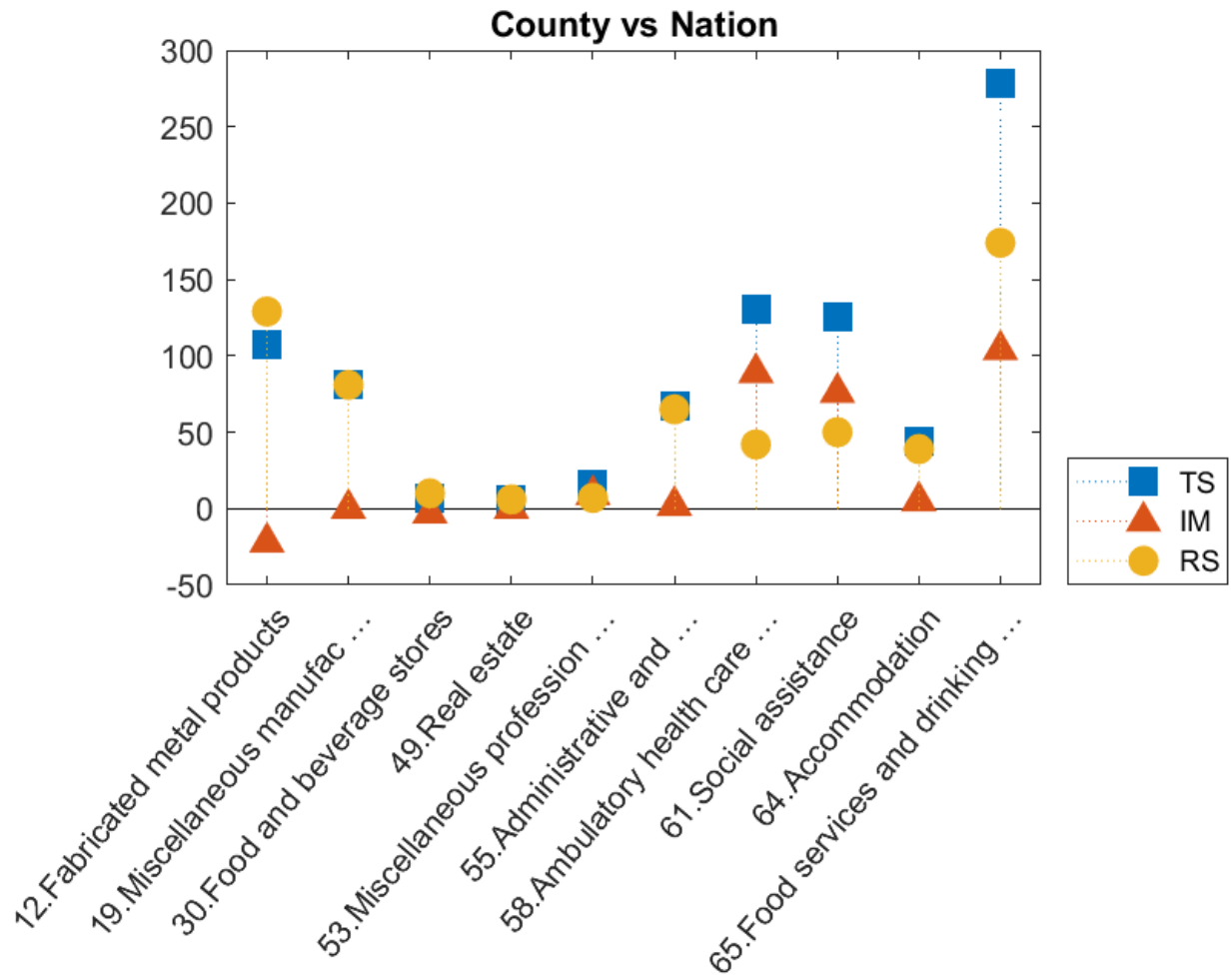
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Hocking County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Hocking County, Ohio vs the U.S.

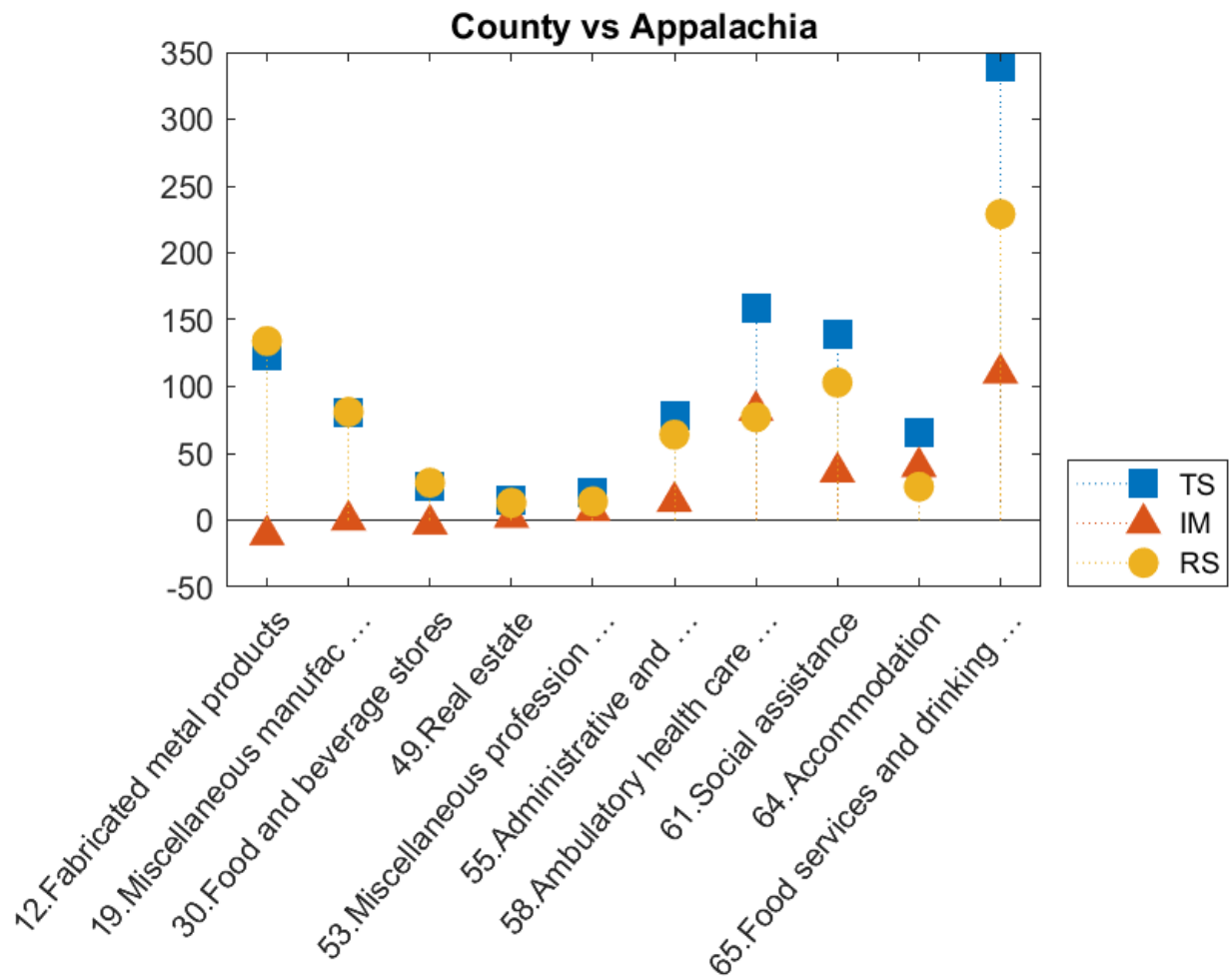


Chapter 14. Hocking County, Ohio

Hocking County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	17	107	-22	129	275
19	Miscellaneous manufac ...	0	81	-0	81	82
30	Food and beverage stores	18	7	-3	10	185
49	Real estate	10	6	-0	6	101
53	Miscellaneous profession ...	6	16	9	7	72
55	Administrative and ...	12	67	2	65	184
58	Ambulatory health care ...	29	131	89	42	414
61	Social assistance	13	126	76	50	255
64	Accommodation	22	44	5	39	263
65	Food services and drinking ...	62	278	104	174	888

Selected SSA Components for Hocking County, Ohio vs the Appalachian Region

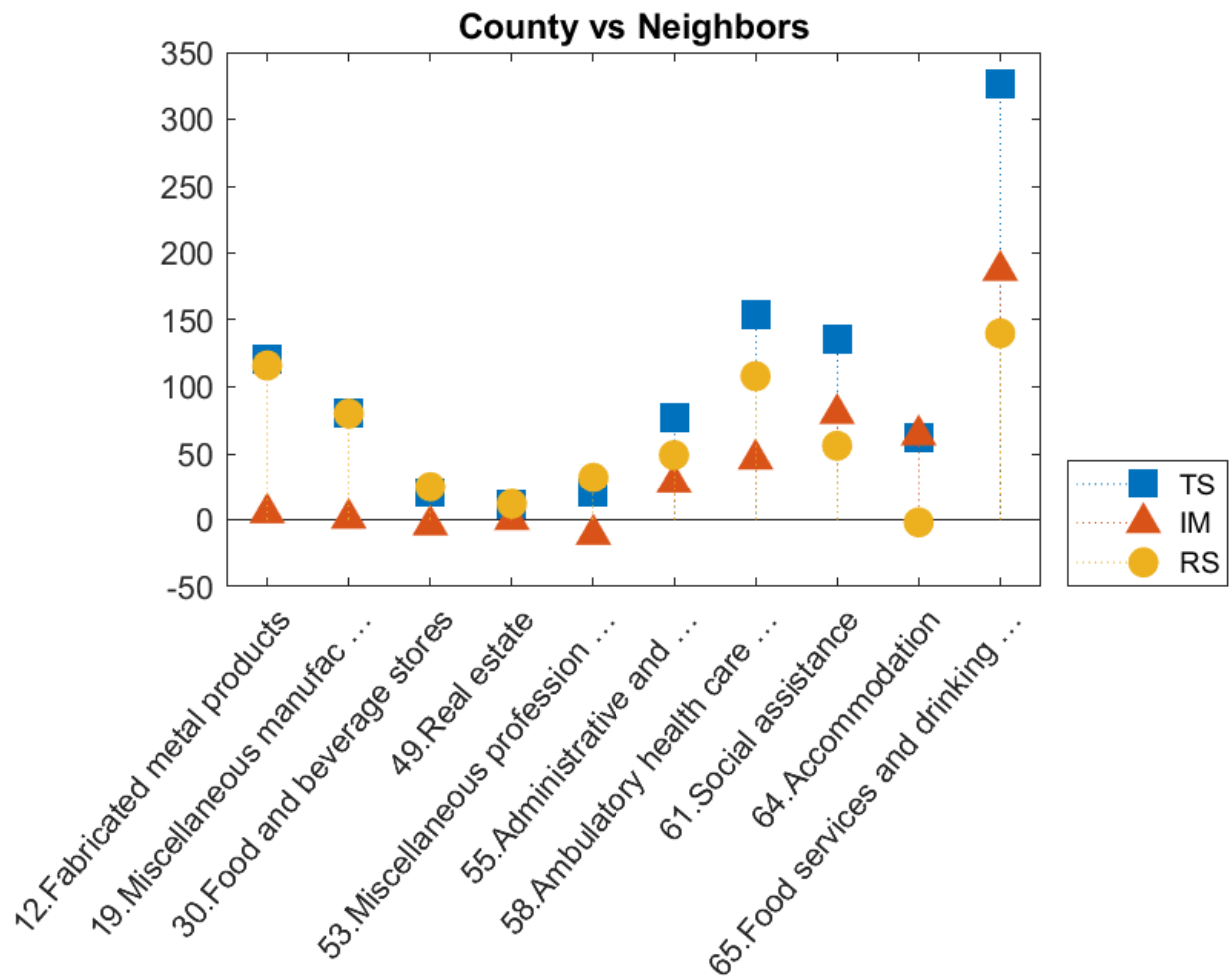


Chapter 14. Hocking County, Ohio

Selected SSA Components for Hocking County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	1	123	-11	134	275
19	Miscellaneous manufac ...	0	81	-0	81	82
30	Food and beverage stores	1	25	-3	28	185
49	Real estate	0	15	2	13	101
53	Miscellaneous profession ...	0	21	7	14	72
55	Administrative and ...	0	78	14	64	184
58	Ambulatory health care ...	1	159	82	77	414
61	Social assistance	0	139	36	103	255
64	Accommodation	1	65	40	25	263
65	Food services and drinking ...	2	339	110	229	888

Selected SSA Components for Hocking County, Ohio vs Neighbors



Chapter 14. Hocking County, Ohio

Selected SSA Components for Hocking County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
12	Fabricated metal products	4	121	5	116	275
19	Miscellaneous manufac ...	0	81	1	80	82
30	Food and beverage stores	4	21	-4	25	185
49	Real estate	2	12	0	12	101
53	Miscellaneous profession ...	1	21	-11	32	72
55	Administrative and ...	3	77	28	49	184
58	Ambulatory health care ...	6	154	46	108	414
61	Social assistance	3	136	80	56	255
64	Accommodation	5	62	64	-2	263
65	Food services and drinking ...	13	327	187	140	888

Chapter 15. Holmes County, Ohio

Employment in Holmes County, Ohio, grew from 18,736 in 2005 to 19,851 in 2018, for a change of 1,115, or 5.95%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Holmes County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,114	-996	-1,328	332
vs. Appalachia	58	1,047	-973	2,020
vs. Neighbors	-566	1,682	611	1,071

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Holmes County, Ohio, in comparison to at least one of the three referent regions.

Chapter 15. Holmes County, Ohio

Industry Group Membership for Holmes County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	F III c iii	no	yes	yes	yes
09	Wood products	F III c i	no	yes	yes	yes
10	Nonmetallic mineral prod ...	F III c iii	no	yes	yes	yes
18	Furniture and related ...	F III c i	no	yes	yes	yes
20	Food and beverage ...	E I c ii	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts ...	F III a iii	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B II a i	yes	yes	yes	yes
59	Hospitals	E I a iii	no	yes	yes	yes
64	Accommodation	A I a i	yes	yes	yes	yes
65	Food services and drinking ...	B II b i	yes	yes	yes	yes
66	Other services, exc. gov ...	F III c iii	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Holmes County, Ohio vs. the United States

Groups a, b, and c are from Holmes County, Ohio vs. Appalachia

Groups i, ii, and iii are from Holmes County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Holmes County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Holmes County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Holmes County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Holmes County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

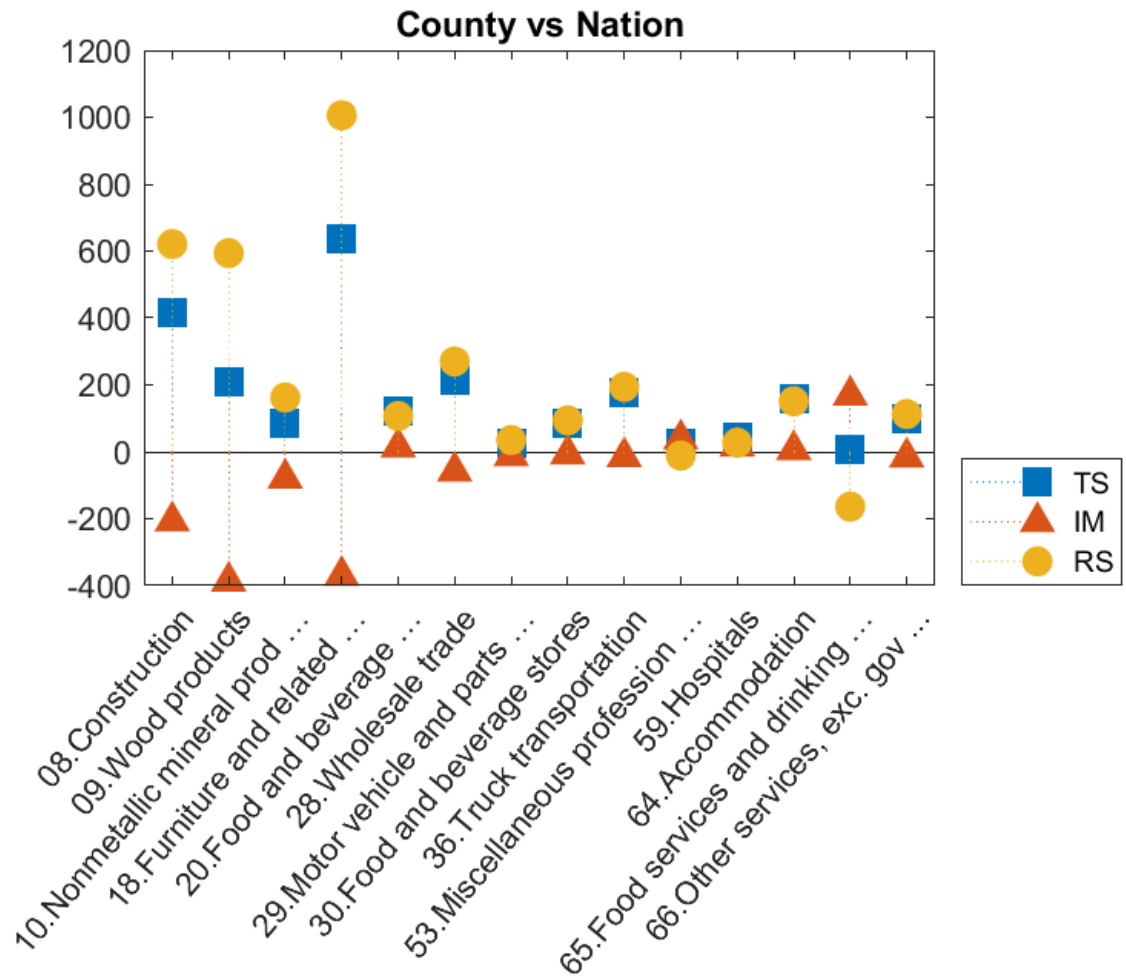
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Holmes County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Holmes County, Ohio vs the U.S.

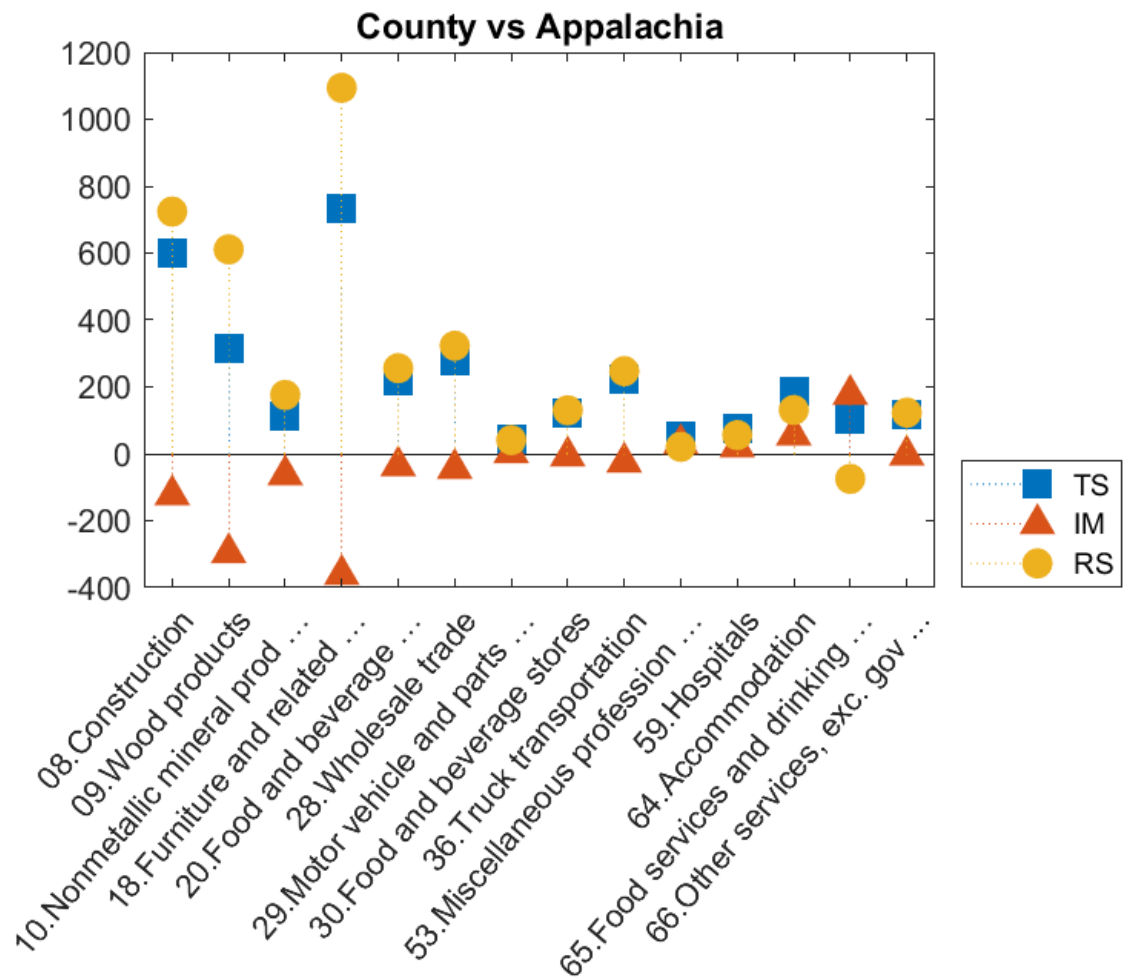


Chapter 15. Holmes County, Ohio

Holmes County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	193	414	-207	621	2,318
09	Wood products	112	207	-387	594	1,309
10	Nonmetallic mineral prod ...	31	83	-79	162	388
18	Furniture and related ...	100	636	-370	1,006	1,626
20	Food and beverage ...	102	121	14	107	1,130
28	Wholesale trade	69	212	-58	270	892
29	Motor vehicle and parts ...	21	23	-12	35	235
30	Food and beverage stores	37	87	-7	94	450
36	Truck transportation	44	179	-15	194	614
53	Miscellaneous profession ...	25	27	38	-11	275
59	Hospitals	34	44	17	27	376
64	Accommodation	31	157	6	151	463
65	Food services and drinking ...	100	5	169	-164	992
66	Other services, exc. gov ...	24	97	-16	113	330

Selected SSA Components for Holmes County, Ohio vs the Appalachian Region

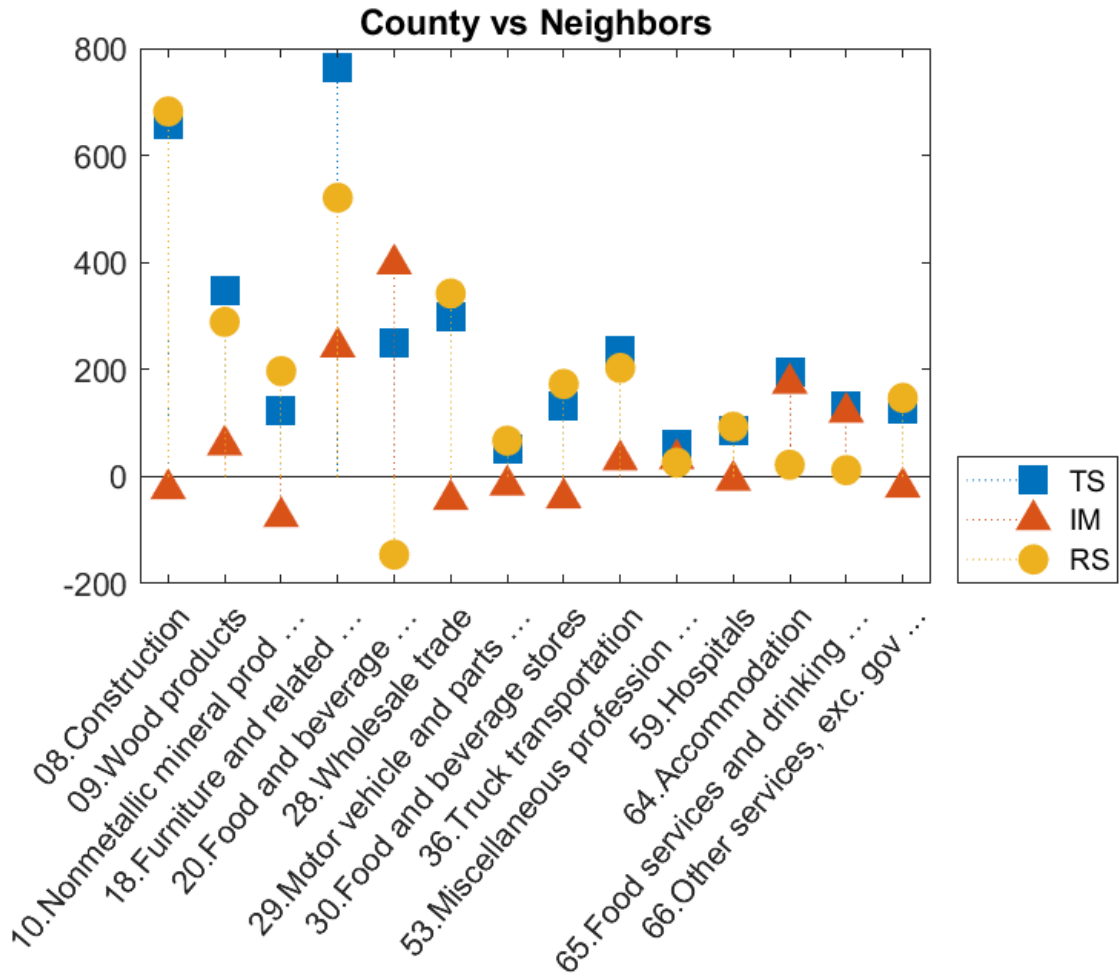


Chapter 15. Holmes County, Ohio

Selected SSA Components for Holmes County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	6	601	-123	724	2,318
09	Wood products	3	315	-296	611	1,309
10	Nonmetallic mineral prod ...	1	113	-63	176	388
18	Furniture and related ...	3	733	-361	1,094	1,626
20	Food and beverage ...	3	220	-36	256	1,130
28	Wholesale trade	2	279	-44	323	892
29	Motor vehicle and parts ...	1	44	3	41	235
30	Food and beverage stores	1	123	-7	130	450
36	Truck transportation	1	222	-25	247	614
53	Miscellaneous profession ...	1	51	30	21	275
59	Hospitals	1	76	20	56	376
64	Accommodation	1	187	56	131	463
65	Food services and drinking ...	3	102	177	-75	992
66	Other services, exc. gov ...	1	119	-4	123	330

Selected SSA Components for Holmes County, Ohio vs Neighbors



Chapter 15. Holmes County, Ohio

Selected SSA Components for Holmes County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-52	659	-23	682	2,318
09	Wood products	-30	348	59	289	1,309
10	Nonmetallic mineral prod ...	-8	122	-75	197	388
18	Furniture and related ...	-27	763	242	521	1,626
20	Food and beverage ...	-27	251	397	-146	1,130
28	Wholesale trade	-18	299	-43	342	892
29	Motor vehicle and parts ...	-6	51	-16	67	235
30	Food and beverage stores	-10	133	-40	173	450
36	Truck transportation	-12	234	31	203	614
53	Miscellaneous profession ...	-7	59	33	26	275
59	Hospitals	-9	86	-7	93	376
64	Accommodation	-8	196	174	22	463
65	Food services and drinking ...	-27	132	120	12	992
66	Other services, exc. gov ...	-6	127	-20	147	330

Chapter 16. Jackson County, Ohio

Employment in Jackson County, Ohio, declined from 12,152 in 2005 to 10,247 in 2018, for a change of -1,905, or -15.68%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Jackson County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,372	-3,271	-262	-3,009
vs. Appalachia	39	-1,942	-160	-1,782
vs. Neighbors	-640	-1,264	-587	-677

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Jackson County, Ohio, in comparison to at least one of the three referent regions.

Chapter 16. Jackson County, Ohio

Industry Group Membership for Jackson County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c i	no	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
56	Waste management and ...	A I b ii	yes	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
59	Hospitals	E II a ii	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Jackson County, Ohio vs. the United States

Groups a, b, and c are from Jackson County, Ohio vs. Appalachia

Groups i, ii, and iii are from Jackson County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Jackson County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Jackson County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Jackson County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Jackson County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

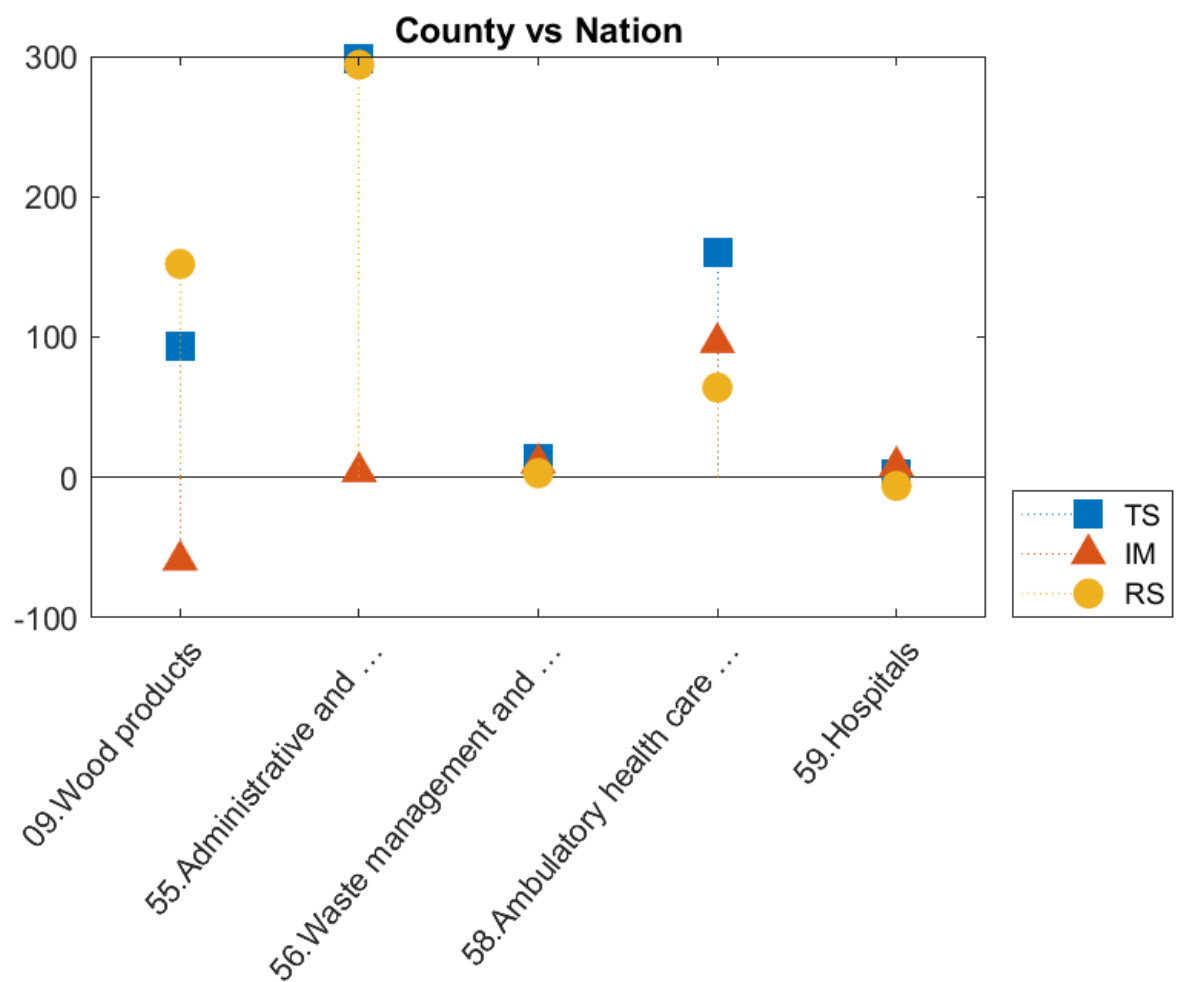
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Jackson County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Jackson County, Ohio vs the U.S.

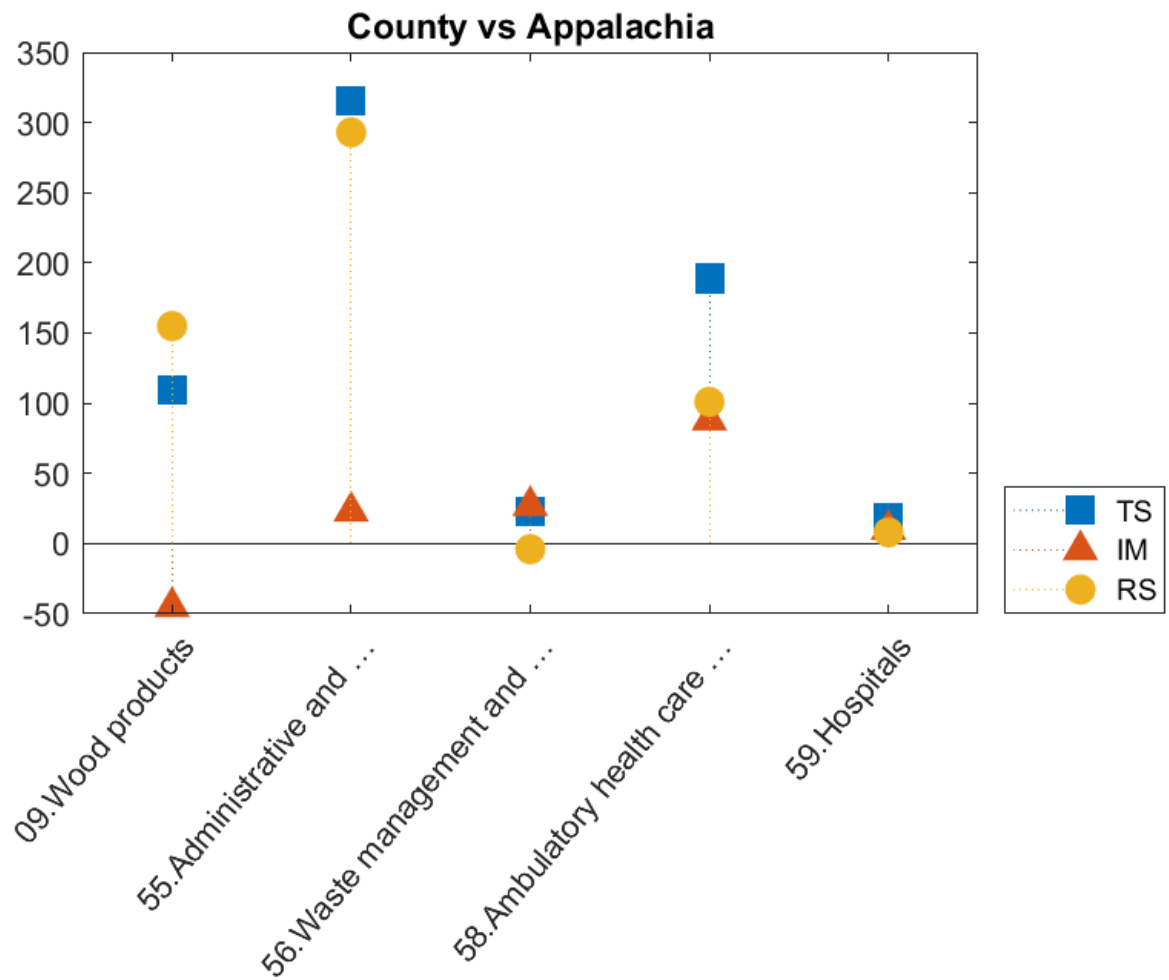


Chapter 16. Jackson County, Ohio

Jackson County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	17	93	-59	152	262
55	Administrative and ...	19	298	4	294	484
56	Waste management and ...	10	13	10	3	115
58	Ambulatory health care ...	31	160	96	64	464
59	Hospitals	17	2	8	-6	165

Selected SSA Components for Jackson County, Ohio vs the Appalachian Region

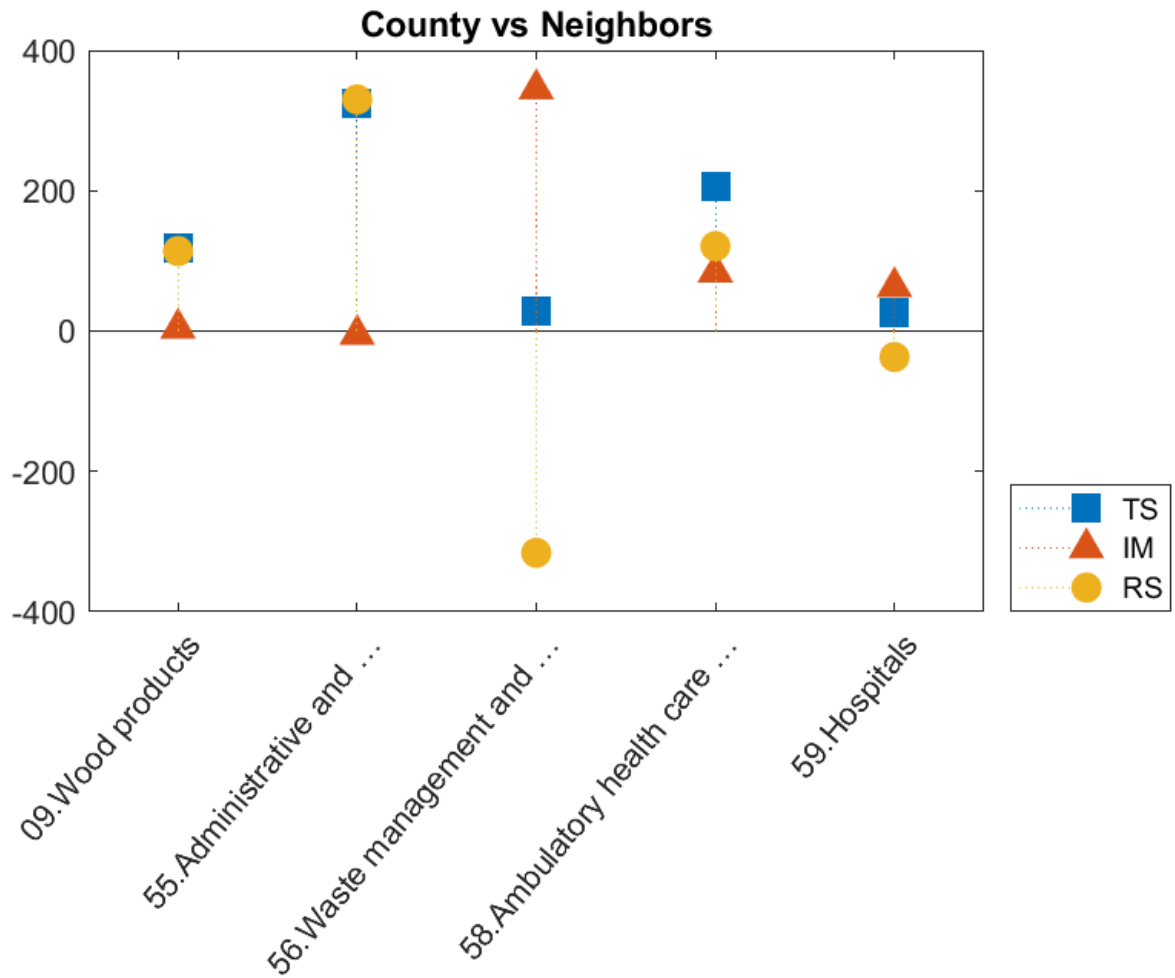


Chapter 16. Jackson County, Ohio

Selected SSA Components for Jackson County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	1	110	-45	155	262
55	Administrative and ...	1	316	23	293	484
56	Waste management and ...	0	23	27	-4	115
58	Ambulatory health care ...	1	189	88	101	464
59	Hospitals	0	18	10	8	165

Selected SSA Components for Jackson County, Ohio vs Neighbors



Chapter 16. Jackson County, Ohio

Selected SSA Components for Jackson County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-8	118	4	114	262
55	Administrative and ...	-9	325	-5	330	484
56	Waste management and ...	-5	29	345	-316	115
58	Ambulatory health care ...	-14	205	84	121	464
59	Hospitals	-8	26	63	-37	165

Chapter 17. Jefferson County, Ohio

Employment in Jefferson County, Ohio, declined from 25,497 in 2005 to 20,424 in 2018, for a change of -5,073, or -19.9%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Jefferson County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,878	-7,946	-401	-7,545
vs. Appalachia	83	-5,158	172	-5,330
vs. Neighbors	-2,854	-2,215	-329	-1,886

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Jefferson County, Ohio, in comparison to at least one of the three referent regions.

Chapter 17. Jefferson County, Ohio

Industry Group Membership for Jefferson County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
40	Warehousing and storage	E I a i	no	yes	yes	yes
53	Miscellaneous profession ...	B V e ii	yes	no	no	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Jefferson County, Ohio vs. the United States

Groups a, b, and c are from Jefferson County, Ohio vs. Appalachia

Groups i, ii, and iii are from Jefferson County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Jefferson County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Jefferson County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Jefferson County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Jefferson County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

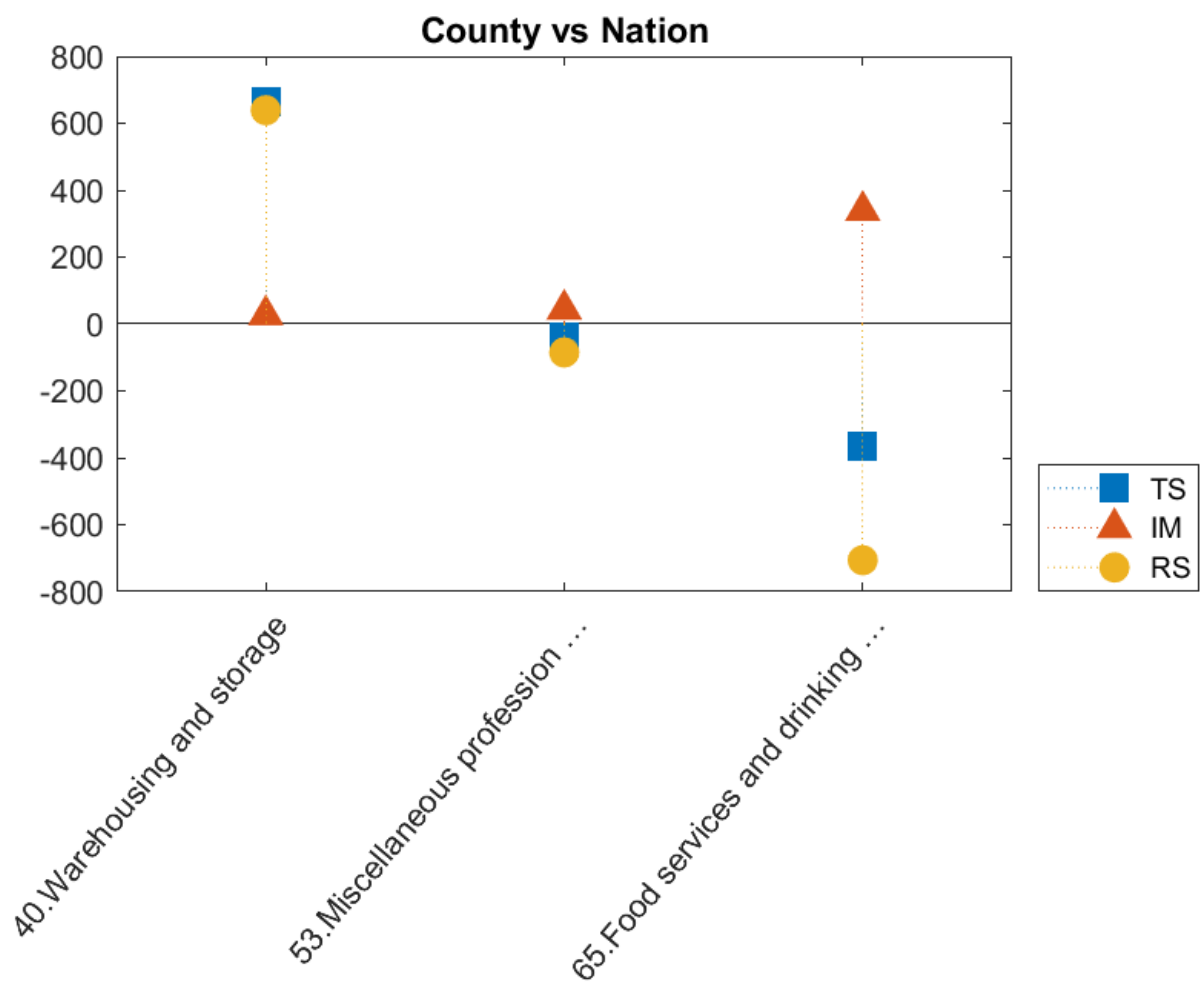
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Jefferson County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Jefferson County, Ohio vs the U.S.

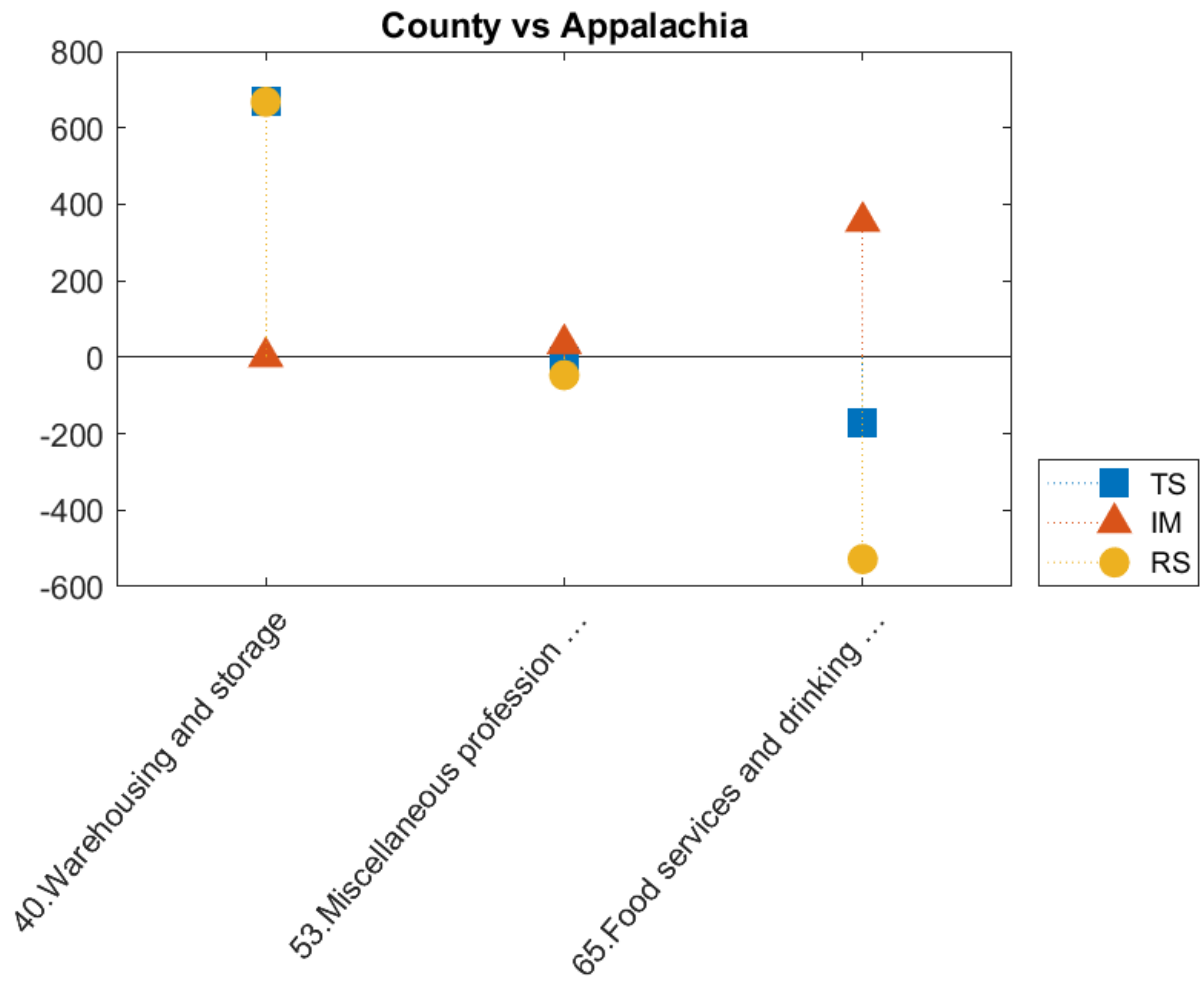


Chapter 17. Jefferson County, Ohio

Jefferson County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
40	Warehousing and storage	4	666	27	639	701
53	Miscellaneous profession ...	29	-41	44	-85	247
65	Food services and drinking ...	200	-367	339	-706	1,610

Selected SSA Components for Jefferson County, Ohio vs the Appalachian Region

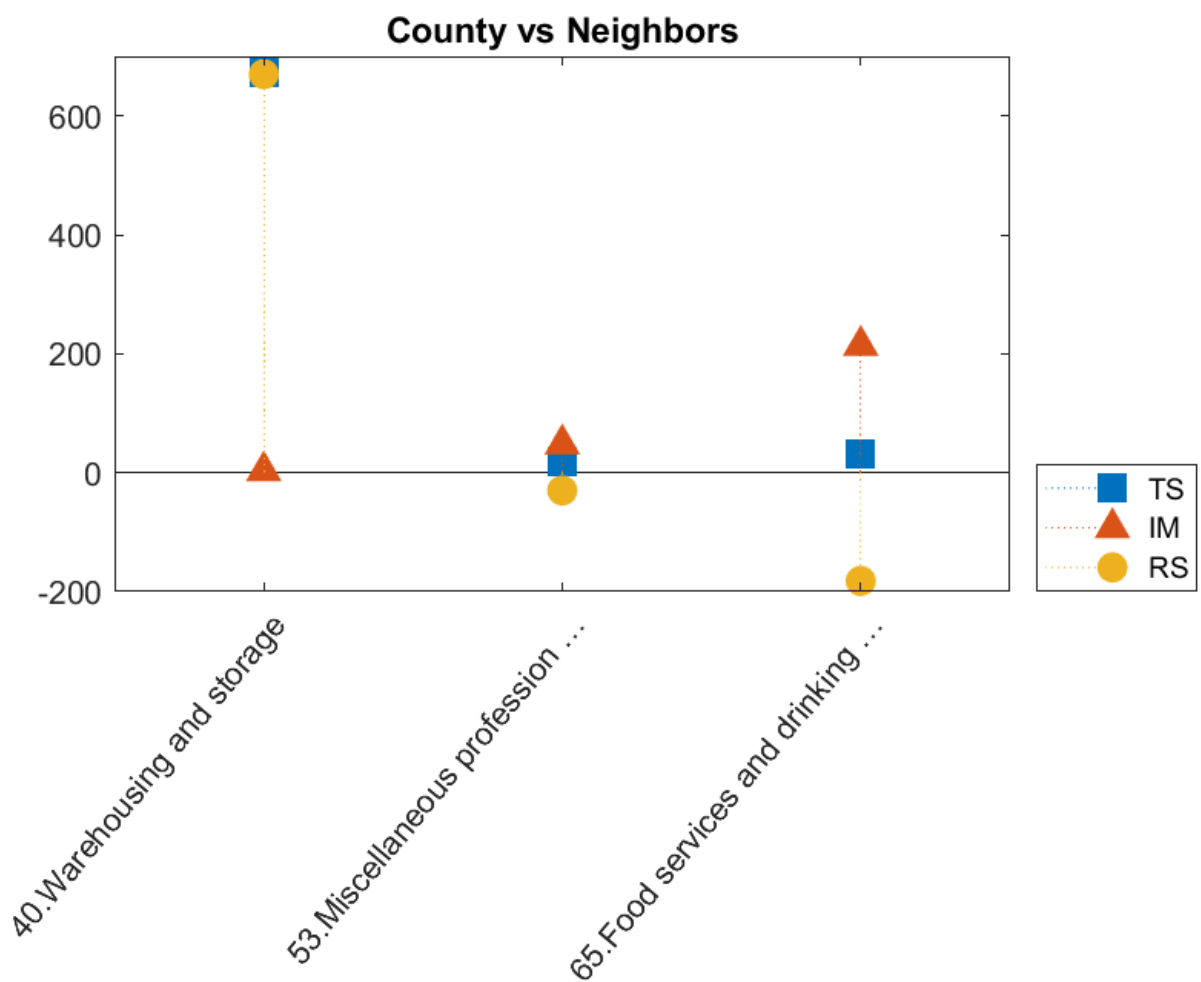


Chapter 17. Jefferson County, Ohio

Selected SSA Components for Jefferson County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
40	Warehousing and storage	0	669	1	668	701
53	Miscellaneous profession ...	1	-12	35	-47	247
65	Food services and drinking ...	6	-173	355	-528	1,610

Selected SSA Components for Jefferson County, Ohio vs Neighbors



Chapter 17. Jefferson County, Ohio

Selected SSA Components for Jefferson County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
40	Warehousing and storage	-4	673	3	670	701
53	Miscellaneous profession ...	-29	18	48	-30	247
65	Food services and drinking ...	-199	32	214	-182	1,610

Chapter 18. Lawrence County, Ohio

Employment in Lawrence County, Ohio, declined from 12,529 in 2005 to 12,487 in 2018, for a change of -42, or -0.34%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Lawrence County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,412	-1,454	392	-1,846
vs. Appalachia	40	-85	161	-246
vs. Neighbors	-1,146	1,106	-229	1,335

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Lawrence County, Ohio, in comparison to at least one of the three referent regions.

Chapter 18. Lawrence County, Ohio

Industry Group Membership for Lawrence County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
08	Construction	F III c iii	no	yes	yes	yes
10	Nonmetallic mineral prod	F III c iii	no	yes	yes	yes
13	Machinery	F III c i	no	yes	yes	yes
28	Wholesale trade	F III c iii	no	yes	yes	yes
50	Rental and leasing services ...	D III c iii	no	yes	yes	yes
55	Administrative and ...	A V b iii	yes	no	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
65	Food services and drinking ...	B V b i	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Lawrence County, Ohio vs. the United States

Groups a, b, and c are from Lawrence County, Ohio vs. Appalachia

Groups i, ii, and iii are from Lawrence County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Lawrence County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Lawrence County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Lawrence County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Lawrence County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

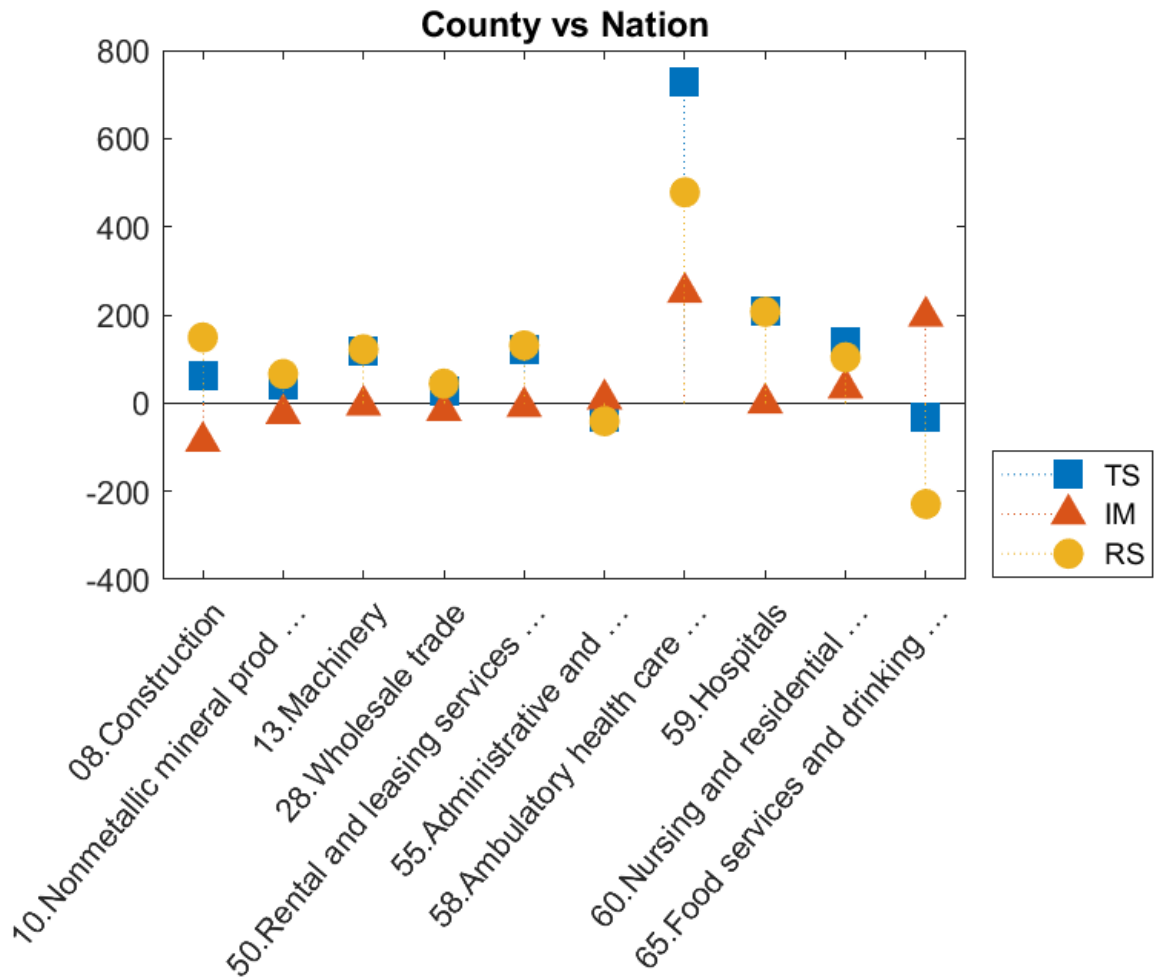
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Lawrence County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Lawrence County, Ohio vs the U.S.

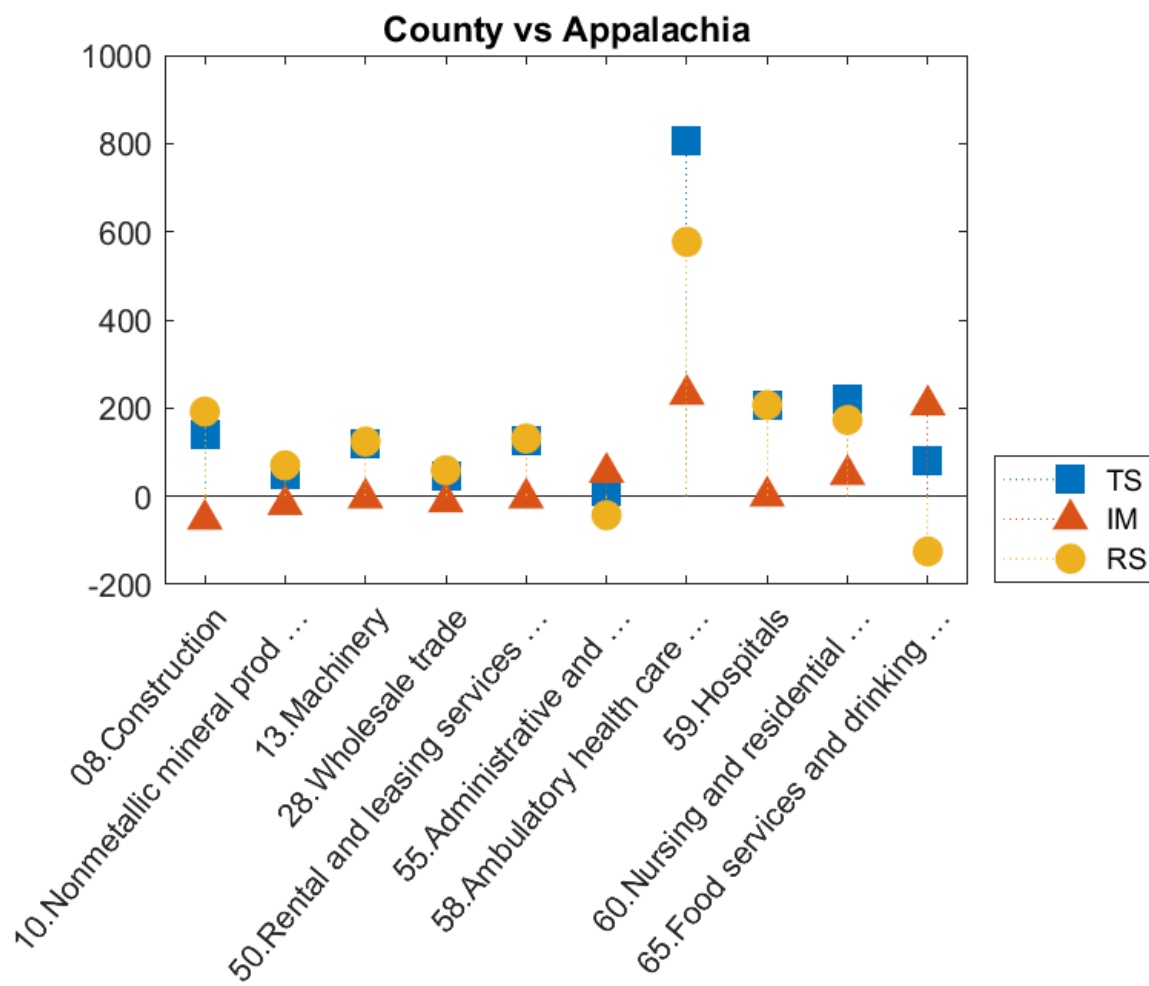


Chapter 18. Lawrence County, Ohio

Lawrence County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	81	62	-87	149	858
10	Nonmetallic mineral prod	9	42	-24	66	135
13	Machinery	3	117	-5	122	150
28	Wholesale trade	20	27	-17	44	224
50	Rental and leasing services ...	4	123	-8	131	162
55	Administrative and ...	44	-32	9	-41	406
58	Ambulatory health care ...	81	729	251	478	1,526
59	Hospitals	0	207	0	207	207
60	Nursing and residential ...	87	138	34	104	993
65	Food services and drinking ...	117	-32	197	-229	1,120

Selected SSA Components for Lawrence County, Ohio vs the Appalachian Region

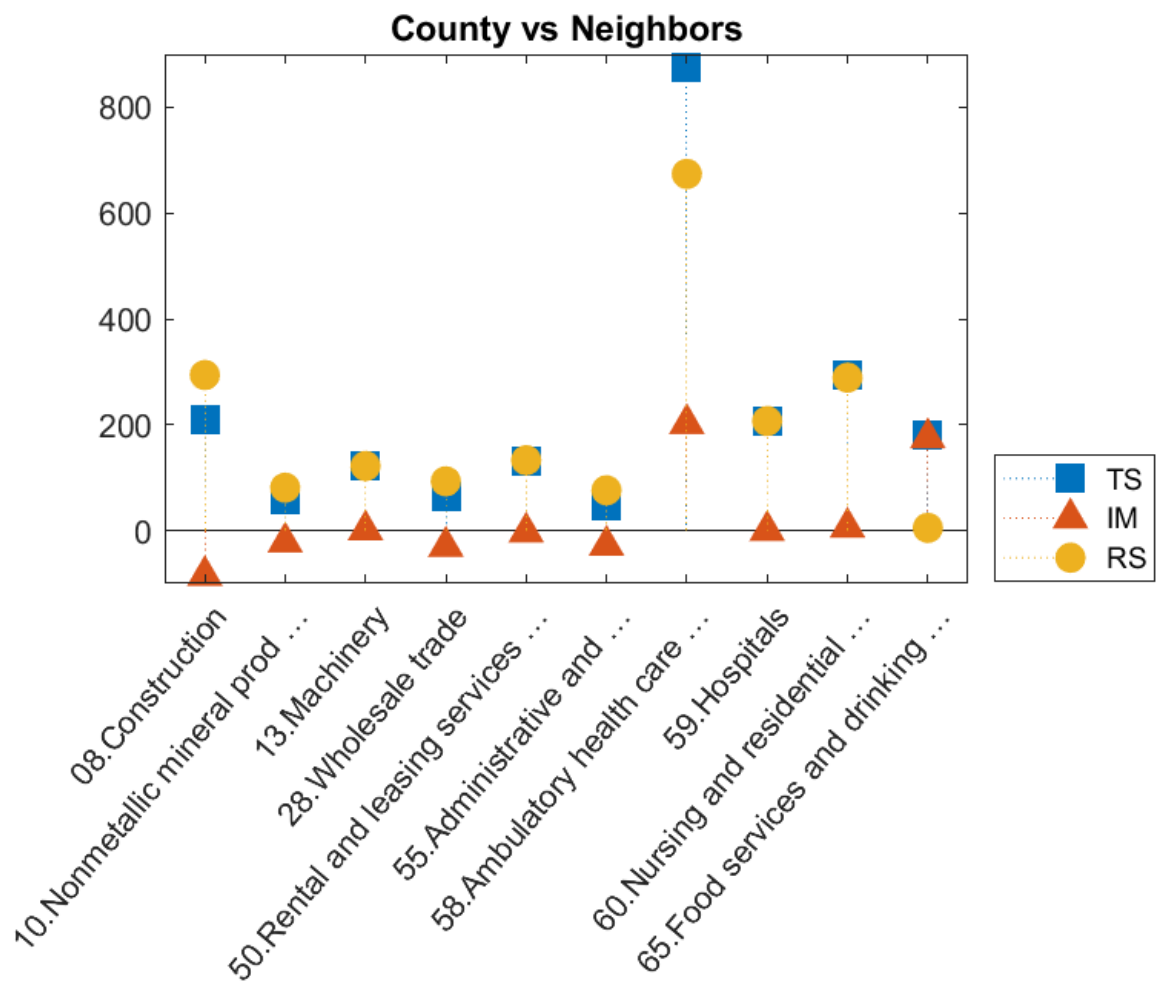


Chapter 18. Lawrence County, Ohio

Selected SSA Components for Lawrence County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	2	140	-52	192	858
10	Nonmetallic mineral prod ...	0	51	-19	70	135
13	Machinery	0	120	-4	124	150
28	Wholesale trade	1	46	-13	59	224
50	Rental and leasing services ...	0	127	-4	131	162
55	Administrative and ...	1	11	54	-43	406
58	Ambulatory health care ...	2	808	231	577	1,526
59	Hospitals	0	207	0	207	207
60	Nursing and residential ...	3	222	49	173	993
65	Food services and drinking ...	4	82	207	-125	1,120

Selected SSA Components for Lawrence County, Ohio vs Neighbors



Chapter 18. Lawrence County, Ohio

Selected SSA Components for Lawrence County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
08	Construction	-66	209	-85	294	858
10	Nonmetallic mineral prod ...	-8	59	-22	81	135
13	Machinery	-3	123	1	122	150
28	Wholesale trade	-16	63	-30	93	224
50	Rental and leasing services ...	-3	130	-3	133	162
55	Administrative and ...	-36	48	-28	76	406
58	Ambulatory health care ...	-66	876	202	674	1,526
59	Hospitals	-0	207	0	207	207
60	Nursing and residential ...	-70	295	6	289	993
65	Food services and drinking ...	-95	180	175	5	1,120

Chapter 19. Mahoning County, Ohio

Employment in Mahoning County, Ohio, declined from 108,561 in 2005 to 97,101 in 2018, for a change of -11,460, or -10.56%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Mahoning County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	12,243	-23,705	2,202	-25,907
vs. Appalachia	371	-11,831	2,808	-14,639
vs. Neighbors	-10,365	-1,095	1,280	-2,375

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Mahoning County, Ohio, in comparison to at least one of the three referent regions.

Chapter 19. Mahoning County, Ohio

Industry Group Membership for Mahoning County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
11	Primary metals	F III c iii	no	yes	yes	yes
39	Other transportation ...	E I c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B V b i	yes	no	yes	yes
54	Management of companies ...	A I b ii	yes	yes	yes	yes
55	Administrative and ...	A V e iii	yes	no	no	yes
58	Ambulatory health care ...	B V e ii	yes	no	no	yes
60	Nursing and residential ...	E II a i	no	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
63	Amusements, gambling, ...	B I a iii	yes	yes	yes	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Mahoning County, Ohio vs. the United States

Groups a, b, and c are from Mahoning County, Ohio vs. Appalachia

Groups i, ii, and iii are from Mahoning County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Mahoning County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Mahoning County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Mahoning County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Mahoning County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

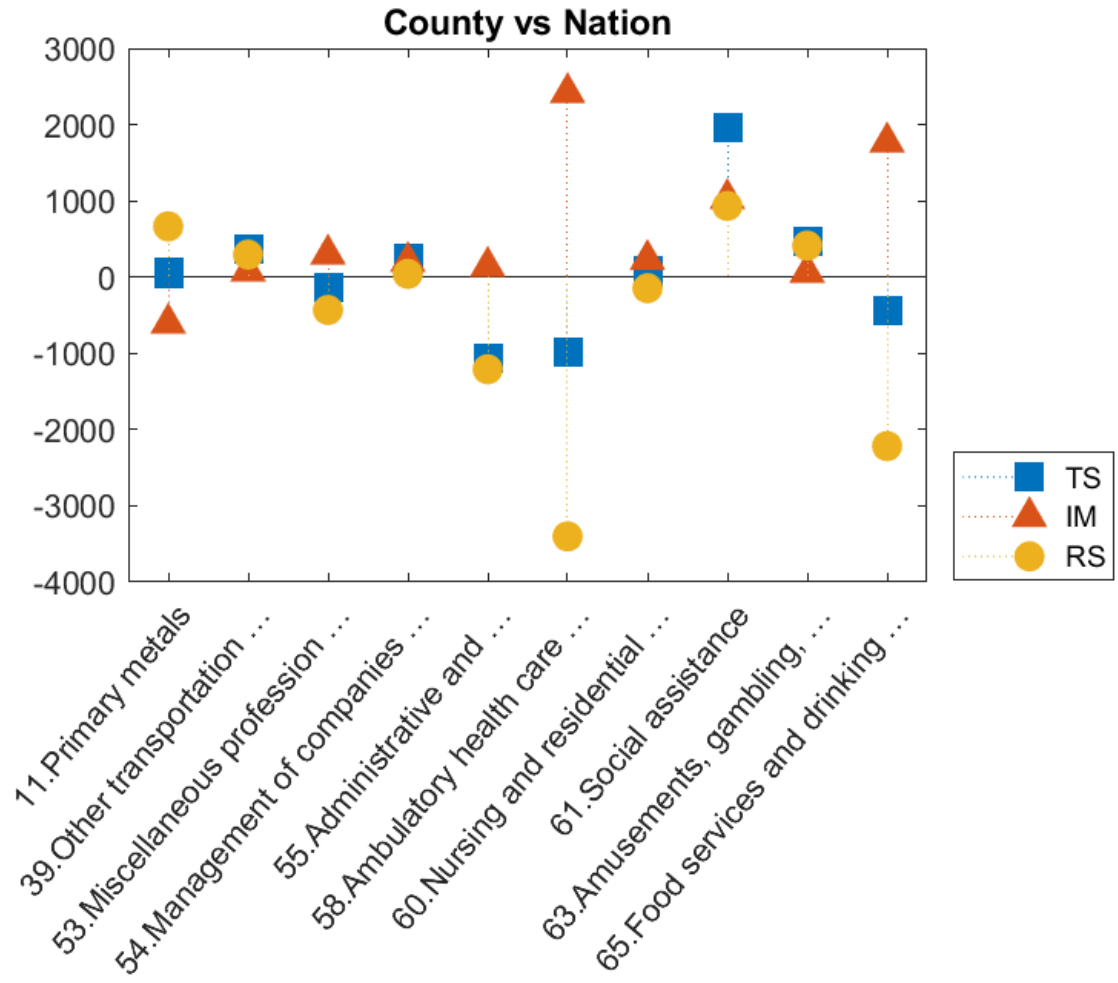
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Mahoning County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Mahoning County, Ohio vs the U.S.

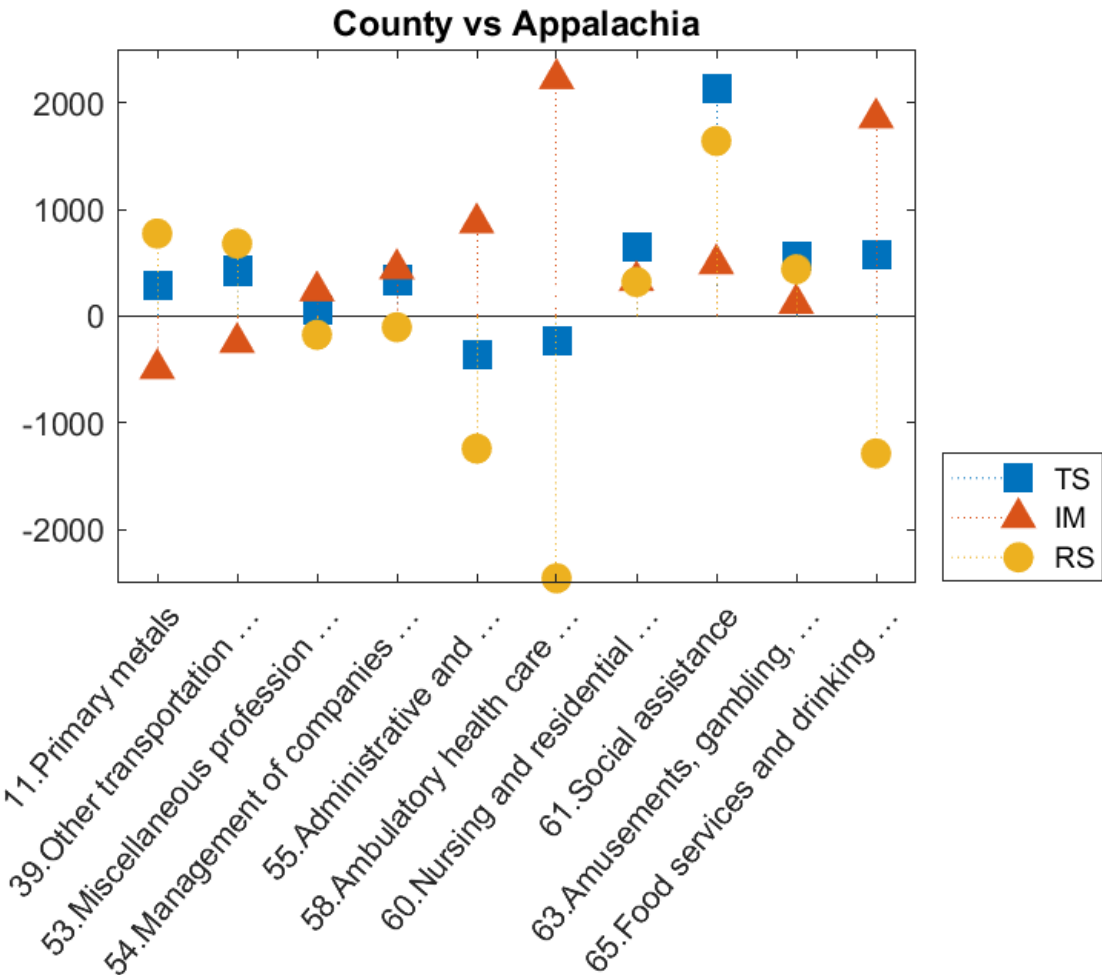


Chapter 19. Mahoning County, Ohio

Mahoning County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	230	60	-605	665	2,329
39	Other transportation ...	64	374	79	295	1,003
53	Miscellaneous profession ...	200	-131	300	-431	1,845
54	Management of companies ...	98	246	203	43	1,210
55	Administrative and ...	723	-1,069	139	-1,208	6,066
58	Ambulatory health care ...	777	-983	2,418	-3,401	6,687
60	Nursing and residential ...	588	84	230	-146	5,884
61	Social assistance	177	1,961	1,028	933	3,707
63	Amusements, gambling, ...	88	474	61	413	1,341
65	Food services and drinking ...	1,048	-445	1,771	-2,216	9,895

Selected SSA Components for Mahoning County, Ohio vs the Appalachian Region

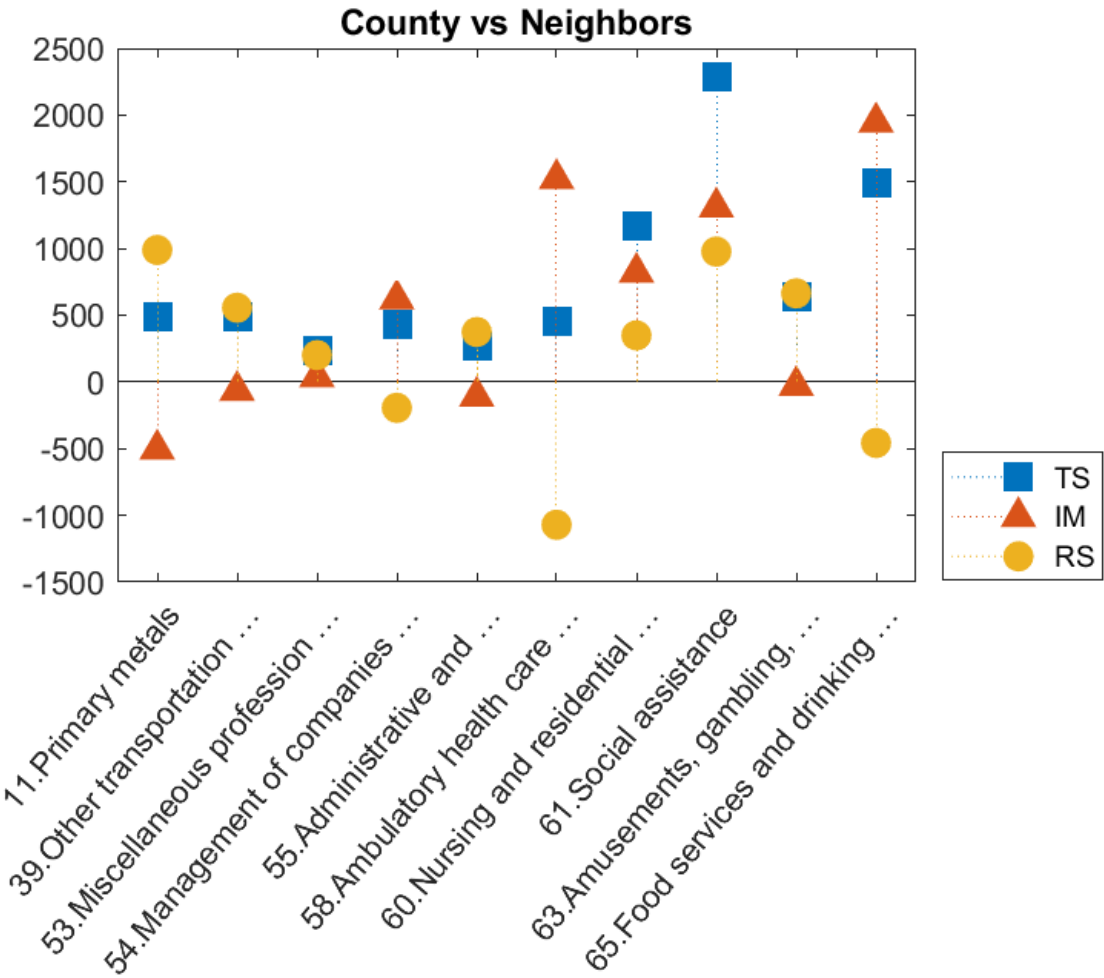


Chapter 19. Mahoning County, Ohio

Selected SSA Components for Mahoning County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	7	283	-491	774	2,329
39	Other transportation ...	2	435	-246	681	1,003
53	Miscellaneous profession ...	6	63	237	-174	1,845
54	Management of companies ...	3	341	444	-103	1,210
55	Administrative and ...	22	-367	873	-1,240	6,066
58	Ambulatory health care ...	23	-230	2,225	-2,455	6,687
60	Nursing and residential ...	18	654	333	321	5,884
61	Social assistance	5	2,133	491	1,642	3,707
63	Amusements, gambling, ...	3	560	120	440	1,341
65	Food services and drinking ...	32	572	1,858	-1,286	9,895

Selected SSA Components for Mahoning County, Ohio vs Neighbors



Chapter 19. Mahoning County, Ohio

Selected SSA Components for Mahoning County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
11	Primary metals	-195	485	-504	989	2,329
39	Other transportation ...	-54	492	-64	556	1,003
53	Miscellaneous profession ...	-170	239	38	201	1,845
54	Management of companies ...	-83	427	621	-194	1,210
55	Administrative and ...	-612	266	-108	374	6,066
58	Ambulatory health care ...	-658	452	1,523	-1,071	6,687
60	Nursing and residential ...	-498	1,170	821	349	5,884
61	Social assistance	-150	2,287	1,310	977	3,707
63	Amusements, gambling, ...	-74	637	-27	664	1,341
65	Food services and drinking ...	-887	1,490	1,947	-457	9,895

Chapter 20. Meigs County, Ohio

Employment in Meigs County, Ohio, declined from 3,866 in 2005 to 3,643 in 2018, for a change of -223, or -5.77%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Meigs County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	434	-655	106	-761
vs. Appalachia	10	-235	102	-337
vs. Neighbors	-402	181	122	59

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Meigs County, Ohio, in comparison to at least one of the three referent regions.

Chapter 20. Meigs County, Ohio

Industry Group Membership for Meigs County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
20	Food and beverage ...	E I c iii	no	yes	yes	yes
29	Motor vehicle and parts ...	F III a i	no	yes	yes	yes
49	Real estate	F I a i	no	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
57	Educational services	F III a iii	no	yes	yes	yes
61	Social assistance	B II b ii	yes	yes	yes	yes
65	Food services and drinking ...	B II a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Meigs County, Ohio vs. the United States

Groups a, b, and c are from Meigs County, Ohio vs. Appalachia

Groups i, ii, and iii are from Meigs County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Meigs County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Meigs County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Meigs County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Meigs County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

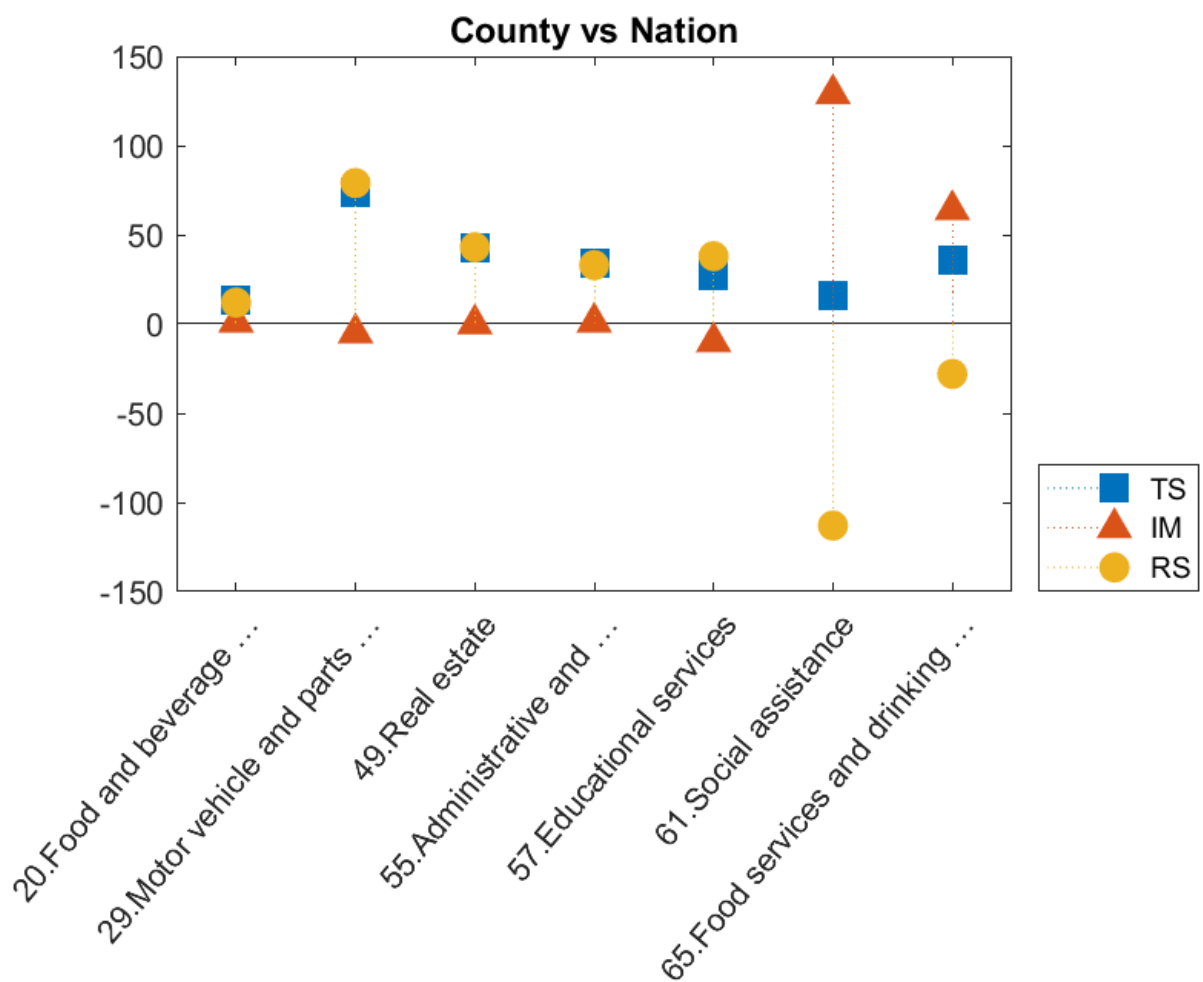
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Meigs County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Meigs County, Ohio vs the U.S.

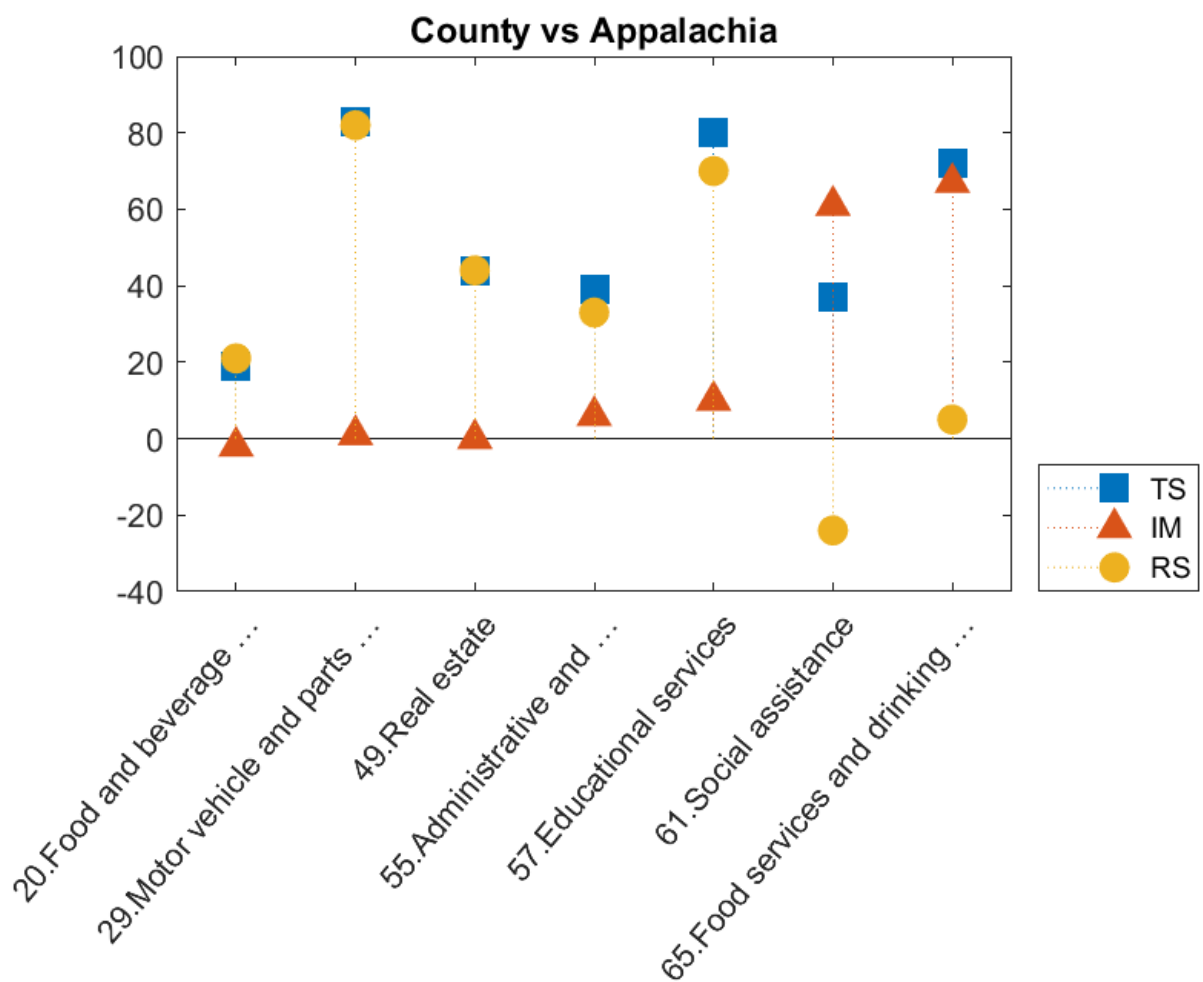


Chapter 20. Meigs County, Ohio

Meigs County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	6	13	1	12	76
29	Motor vehicle and parts ...	8	74	-5	79	158
49	Real estate	1	43	-0	43	49
55	Administrative and ...	5	34	1	33	84
57	Educational services	54	28	-10	38	562
61	Social assistance	22	16	129	-113	234
65	Food services and drinking ...	38	36	64	-28	408

Selected SSA Components for Meigs County, Ohio vs the Appalachian Region

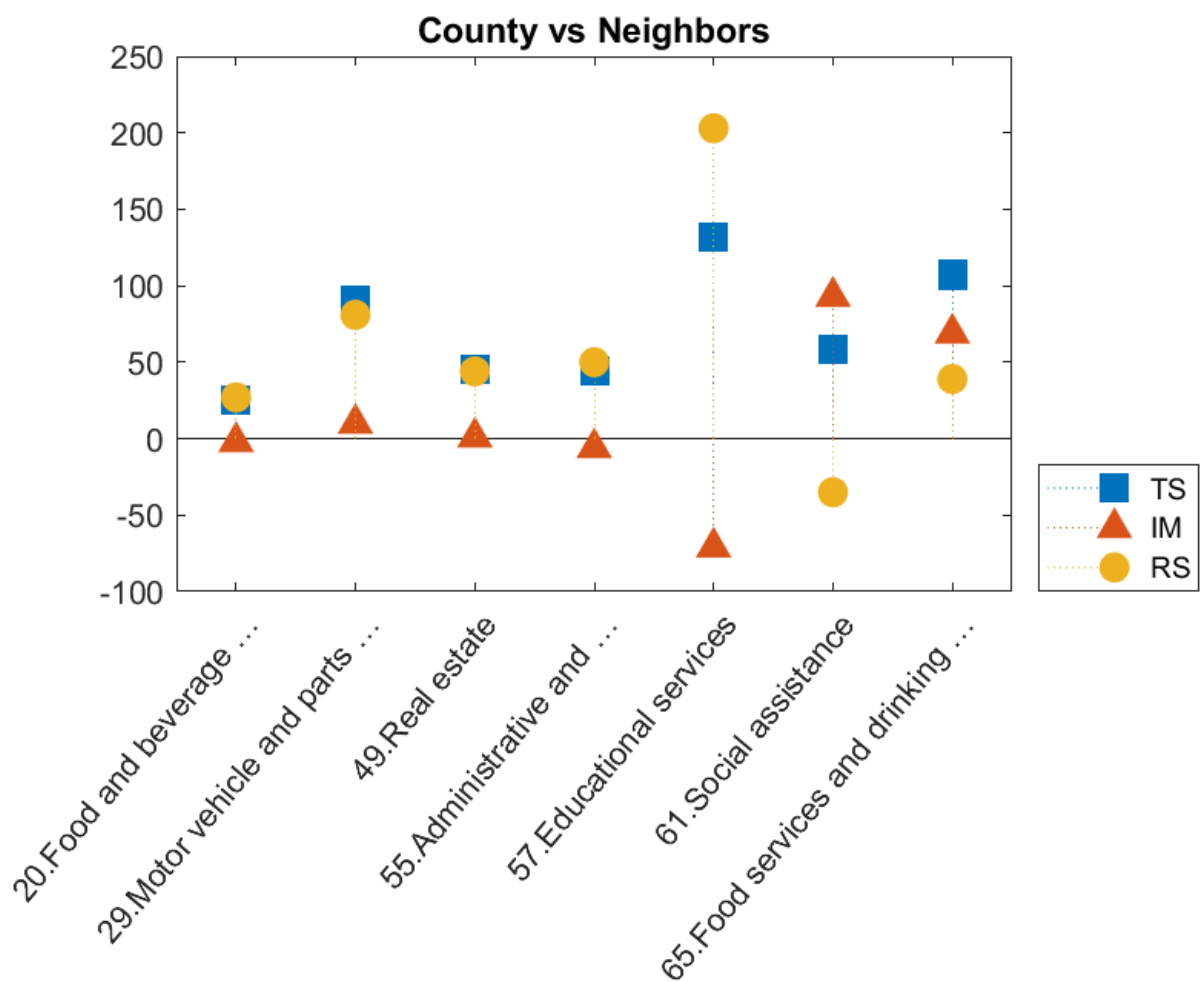


Chapter 20. Meigs County, Ohio

Selected SSA Components for Meigs County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	0	19	-2	21	76
29	Motor vehicle and parts ...	0	83	1	82	158
49	Real estate	0	44	0	44	49
55	Administrative and ...	0	39	6	33	84
57	Educational services	2	80	10	70	562
61	Social assistance	1	37	61	-24	234
65	Food services and drinking ...	1	72	67	5	408

Selected SSA Components for Meigs County, Ohio vs Neighbors



Chapter 20. Meigs County, Ohio

Selected SSA Components for Meigs County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	-6	25	-2	27	76
29	Motor vehicle and parts ...	-8	91	10	81	158
49	Real estate	-1	45	1	44	49
55	Administrative and ...	-5	44	-6	50	84
57	Educational services	-50	132	-71	203	562
61	Social assistance	-20	58	93	-35	234
65	Food services and drinking ...	-35	108	69	39	408

Chapter 21. Monroe County, Ohio

Employment in Monroe County, Ohio, declined from 3,428 in 2005 to 2,798 in 2018, for a change of -630, or -18.38%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Monroe County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	386	-1,010	-74	-936
vs. Appalachia	10	-645	-89	-556
vs. Neighbors	-108	-515	-123	-392

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Monroe County, Ohio, in comparison to at least one of the three referent regions.

Chapter 21. Monroe County, Ohio

Industry Group Membership for Monroe County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
05	Mining, except coal, oil ...	F III c iii	no	yes	yes	yes
06	Support activities for ...	A I a i	yes	yes	yes	yes
07	Utilities	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B V b ii	yes	no	yes	yes
56	Waste management and ...	A I a i	yes	yes	yes	yes
57	Educational services	F III a iii	no	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
65	Food services and drinking ...	B I a i	yes	yes	yes	yes
66	Other services, exc. gov ...	F III c iii	no	yes	yes	yes
68	Government	F III a i	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Monroe County, Ohio vs. the United States

Groups a, b, and c are from Monroe County, Ohio vs. Appalachia

Groups i, ii, and iii are from Monroe County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Monroe County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Monroe County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Monroe County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Monroe County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

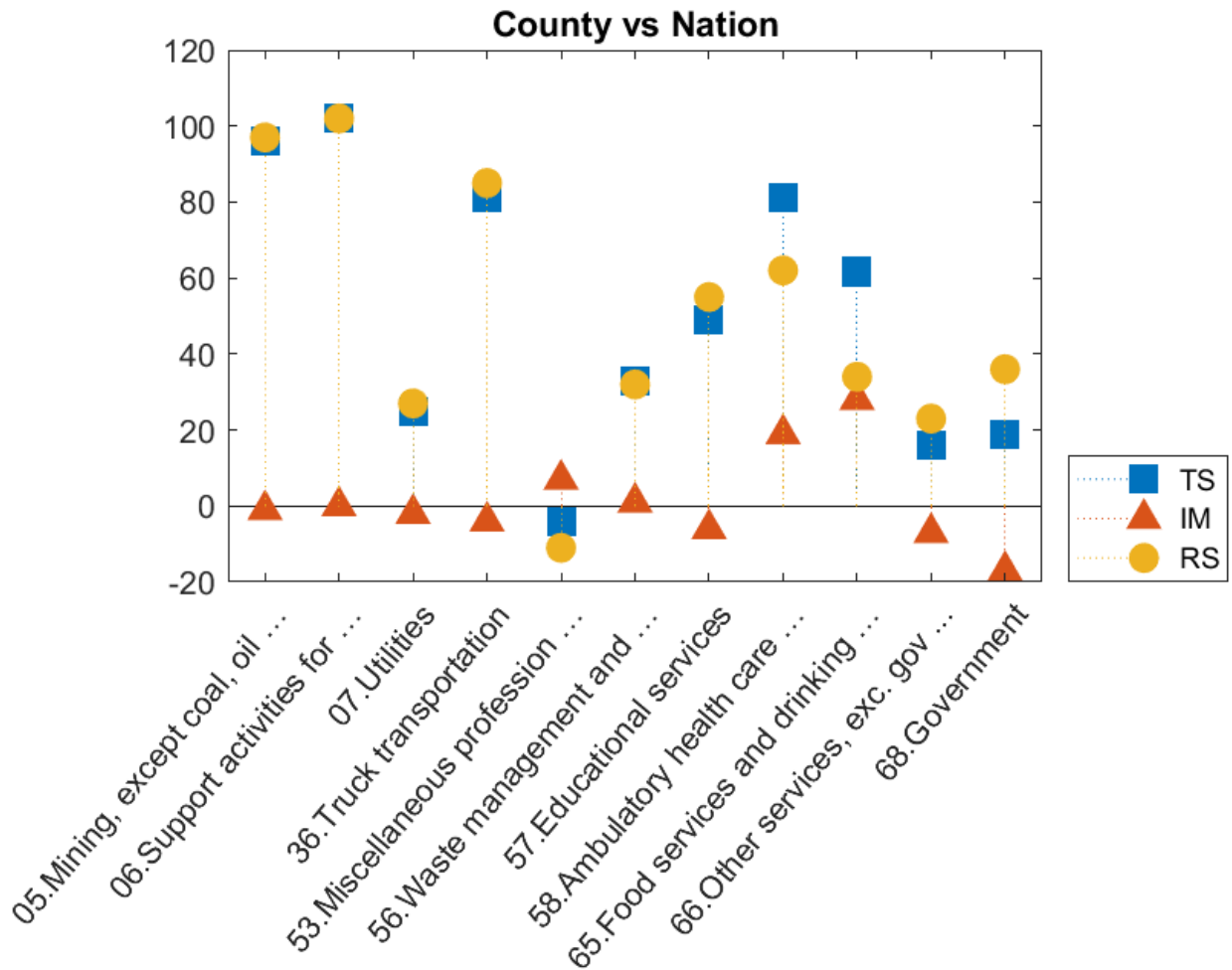
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Monroe County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Monroe County, Ohio vs the U.S.

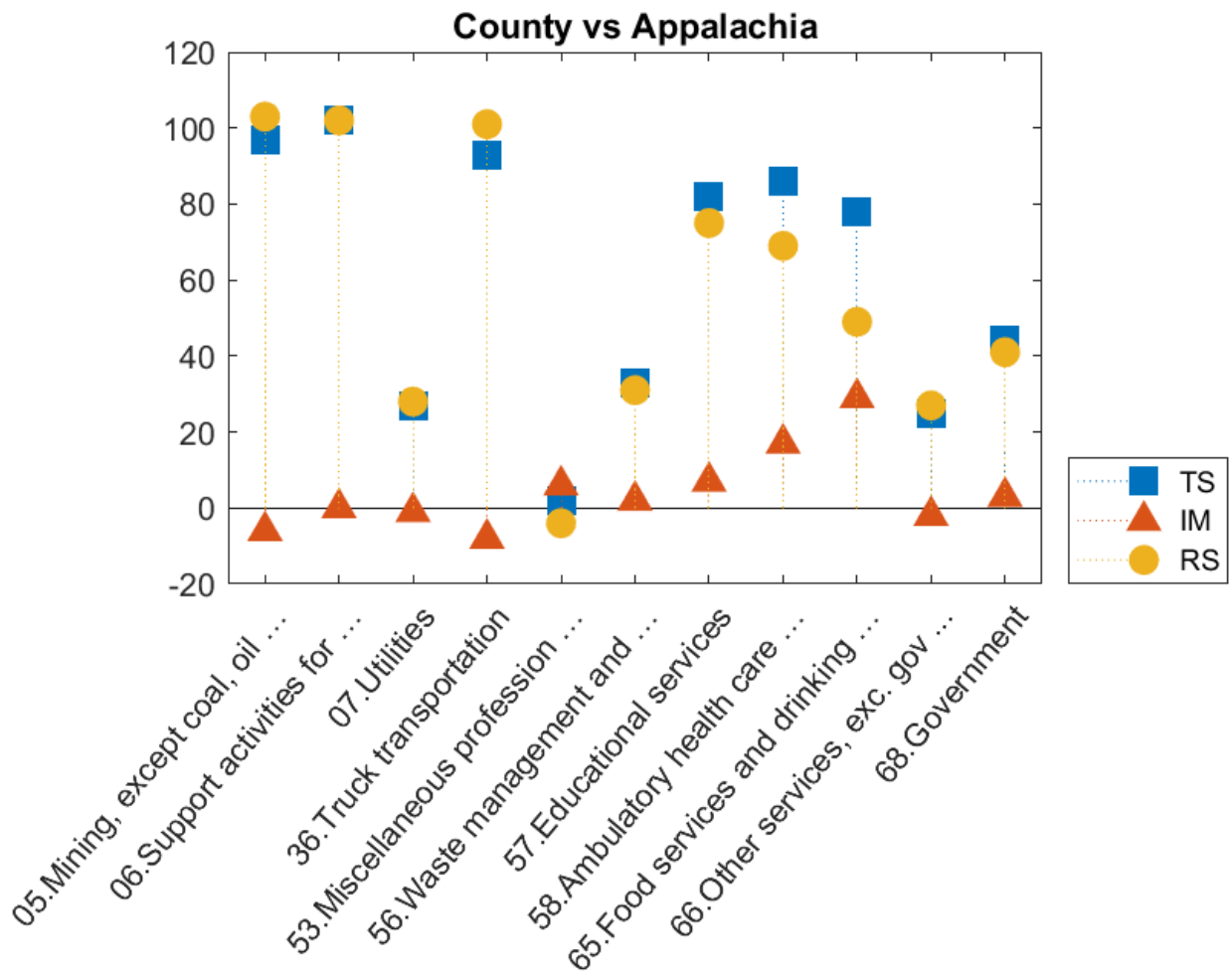


Chapter 21. Monroe County, Ohio

Monroe County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	2	96	-1	97	111
06	Support activities for ...	0	102	0	102	103
07	Utilities	2	25	-2	27	44
36	Truck transportation	14	81	-4	85	214
53	Miscellaneous profession ...	5	-4	7	-11	45
56	Waste management and ...	1	33	1	32	40
57	Educational services	34	49	-6	55	383
58	Ambulatory health care ...	6	81	19	62	139
65	Food services and drinking ...	16	62	28	34	224
66	Other services, exc. gov ...	10	16	-7	23	118
68	Government	25	19	-17	36	270

Selected SSA Components for Monroe County, Ohio vs the Appalachian Region

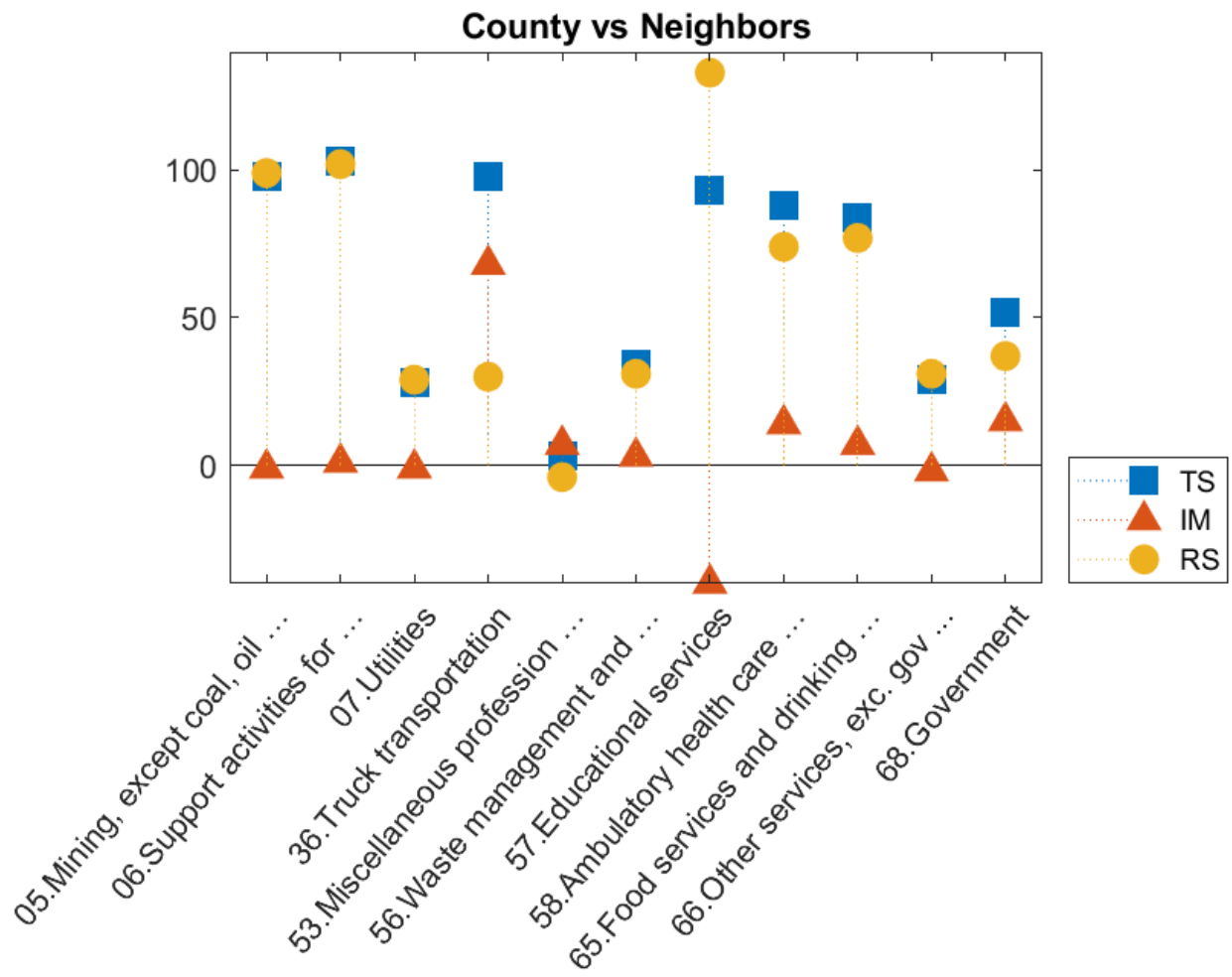


Chapter 21. Monroe County, Ohio

Selected SSA Components for Monroe County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	0	97	-6	103	111
06	Support activities for ...	0	102	0	102	103
07	Utilities	0	27	-1	28	44
36	Truck transportation	0	93	-8	101	214
53	Miscellaneous profession ...	0	2	6	-4	45
56	Waste management and ...	0	33	2	31	40
57	Educational services	1	82	7	75	383
58	Ambulatory health care ...	0	86	17	69	139
65	Food services and drinking ...	0	78	29	49	224
66	Other services, exc. gov ...	0	25	-2	27	118
68	Government	1	44	3	41	270

Selected SSA Components for Monroe County, Ohio vs Neighbors



Chapter 21. Monroe County, Ohio

Selected SSA Components for Monroe County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	-0	98	-1	99	111
06	Support activities for ...	-0	103	1	102	103
07	Utilities	-1	28	-1	29	44
36	Truck transportation	-4	98	68	30	214
53	Miscellaneous profession ...	-1	3	7	-4	45
56	Waste management and ...	-0	34	3	31	40
57	Educational services	-10	93	-40	133	383
58	Ambulatory health care ...	-2	88	14	74	139
65	Food services and drinking ...	-5	84	7	77	224
66	Other services, exc. gov ...	-3	29	-2	31	118
68	Government	-7	52	15	37	270

Chapter 22. Morgan County, Ohio

Employment in Morgan County, Ohio, declined from 2,875 in 2005 to 2,767 in 2018, for a change of -108, or -3.76%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Morgan County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	325	-433	16	-449
vs. Appalachia	7	-119	53	-172
vs. Neighbors	-205	101	-20	121

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Morgan County, Ohio, in comparison to at least one of the three referent regions.

Chapter 22. Morgan County, Ohio

Industry Group Membership for Morgan County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
13	Machinery	F I a i	no	yes	yes	yes
16	Motor vehicles, bodies ...	C III a i	yes	yes	yes	yes
18	Furniture and related ...	F III c iii	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
37	Transit and ground ...	E I a i	no	yes	yes	yes
47	Insurance carriers and ...	F I a i	no	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
62	Performing arts, spectator ...	B I a i	yes	yes	yes	yes
63	Amusements, gambling, ...	B I a i	yes	yes	yes	yes
64	Accommodation	A I a i	yes	yes	yes	yes
65	Food services and drinking ...	B II b i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Morgan County, Ohio vs. the United States

Groups a, b, and c are from Morgan County, Ohio vs. Appalachia

Groups i, ii, and iii are from Morgan County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Morgan County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Morgan County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Morgan County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Morgan County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

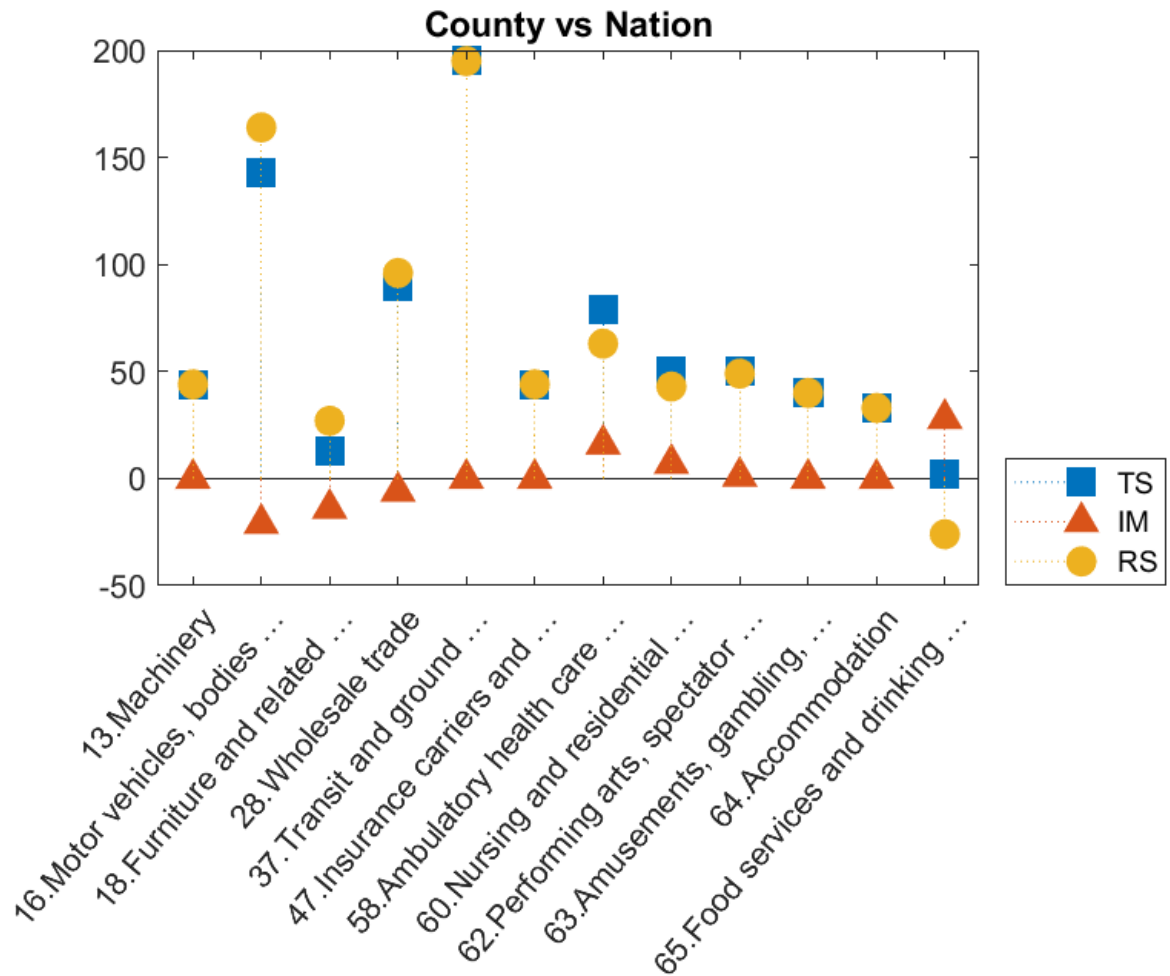
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Morgan County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Morgan County, Ohio vs the U.S.

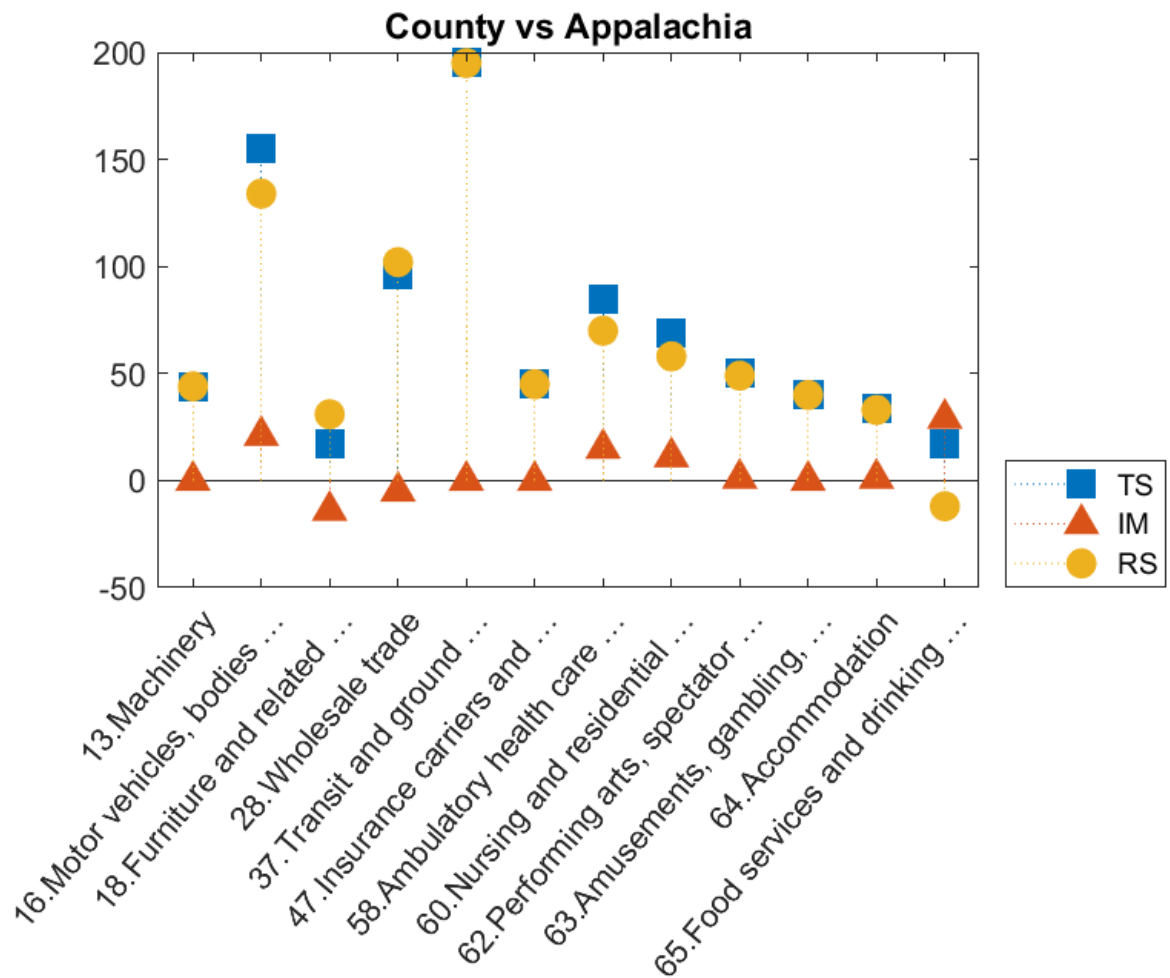


Chapter 22. Morgan County, Ohio

Morgan County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	44	0	44	44
16	Motor vehicles, bodies ...	11	143	-21	164	257
18	Furniture and related ...	4	13	-14	27	51
28	Wholesale trade	8	90	-6	96	164
37	Transit and ground ...	0	195	0	195	195
47	Insurance carriers and ...	1	44	-0	44	54
58	Ambulatory health care ...	5	79	16	63	132
60	Nursing and residential ...	19	50	7	43	236
62	Performing arts, spectator ...	1	50	1	49	56
63	Amusements, gambling, ...	0	40	0	40	40
64	Accommodation	1	33	0	33	39
65	Food services and drinking ...	16	2	28	-26	164

Selected SSA Components for Morgan County, Ohio vs the Appalachian Region

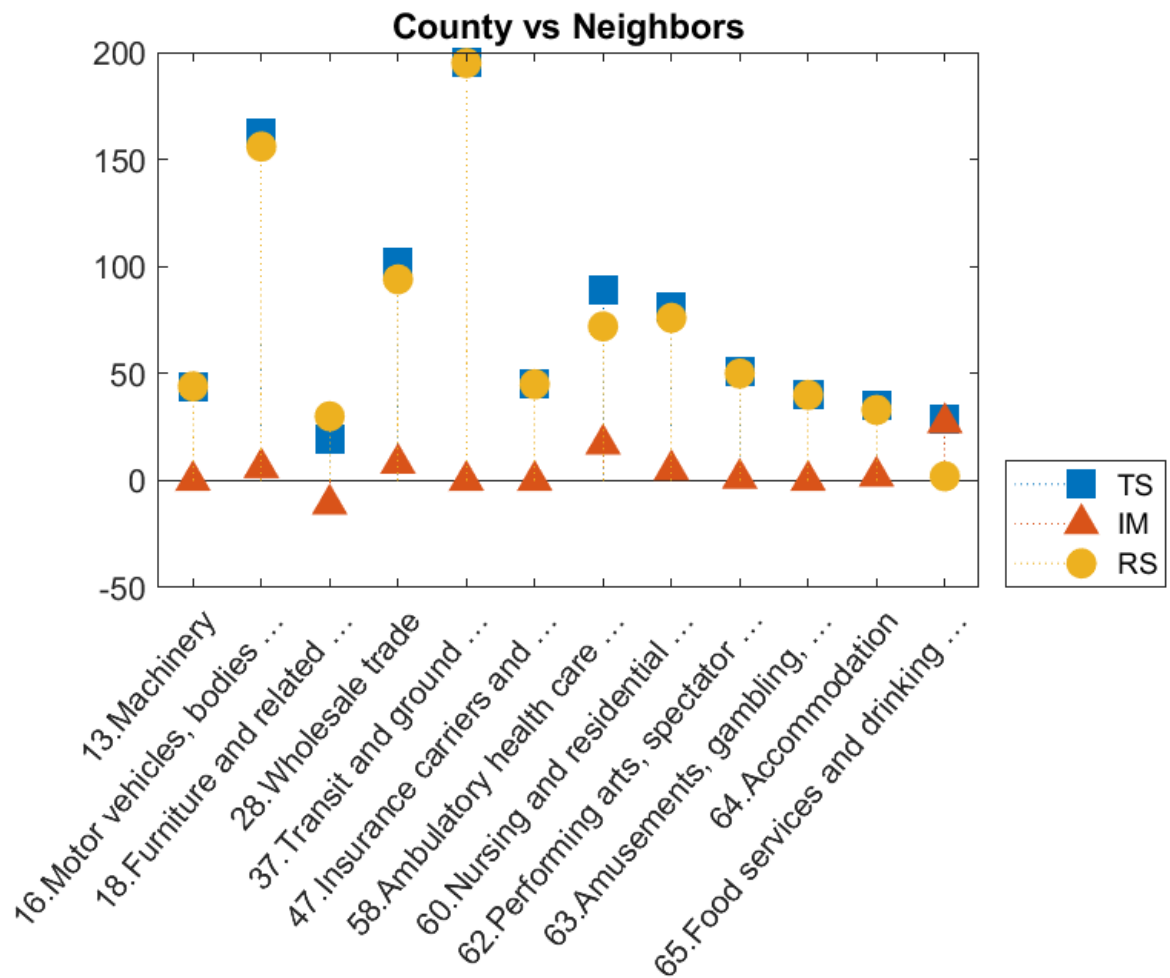


Chapter 22. Morgan County, Ohio

Selected SSA Components for Morgan County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	0	44	0	44	44
16	Motor vehicles, bodies ...	0	155	21	134	257
18	Furniture and related ...	0	17	-14	31	51
28	Wholesale trade	0	97	-5	102	164
37	Transit and ground ...	0	195	0	195	195
47	Insurance carriers and ...	0	45	-0	45	54
58	Ambulatory health care ...	0	85	15	70	132
60	Nursing and residential ...	1	69	11	58	236
62	Performing arts, spectator ...	0	50	1	49	56
63	Amusements, gambling, ...	0	40	0	40	40
64	Accommodation	0	34	1	33	39
65	Food services and drinking ...	0	17	29	-12	164

Selected SSA Components for Morgan County, Ohio vs Neighbors



Chapter 22. Morgan County, Ohio

Selected SSA Components for Morgan County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	-0	44	0	44	44
16	Motor vehicles, bodies ...	-7	162	6	156	257
18	Furniture and related ...	-2	19	-11	30	51
28	Wholesale trade	-5	102	8	94	164
37	Transit and ground ...	-0	195	0	195	195
47	Insurance carriers and ...	-1	45	0	45	54
58	Ambulatory health care ...	-3	89	17	72	132
60	Nursing and residential ...	-12	81	5	76	236
62	Performing arts, spectator ...	-0	51	1	50	56
63	Amusements, gambling, ...	-0	40	-0	40	40
64	Accommodation	-0	35	2	33	39
65	Food services and drinking ...	-11	29	27	2	164

Chapter 23. Muskingum County, Ohio

Employment in Muskingum County, Ohio, declined from 36,354 in 2005 to 33,302 in 2018, for a change of -3,052, or -8.4%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Muskingum County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	4,097	-7,153	-507	-6,646
vs. Appalachia	119	-3,177	112	-3,289
vs. Neighbors	-763	-2,285	485	-2,770

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Muskingum County, Ohio, in comparison to at least one of the three referent regions.

Chapter 23. Muskingum County, Ohio

Industry Group Membership for Muskingum County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
20	Food and beverage ...	E I c ii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
40	Warehousing and storage	E I a ii	no	yes	yes	yes
43	Broadcasting and telecom ...	F III c i	no	yes	yes	yes
53	Miscellaneous profession ...	B V b ii	yes	no	yes	yes
55	Administrative and ...	A I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
65	Food services and drinking ...	B II b ii	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Muskingum County, Ohio vs. the United States

Groups a, b, and c are from Muskingum County, Ohio vs. Appalachia

Groups i, ii, and iii are from Muskingum County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Muskingum County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Muskingum County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Muskingum County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Muskingum County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

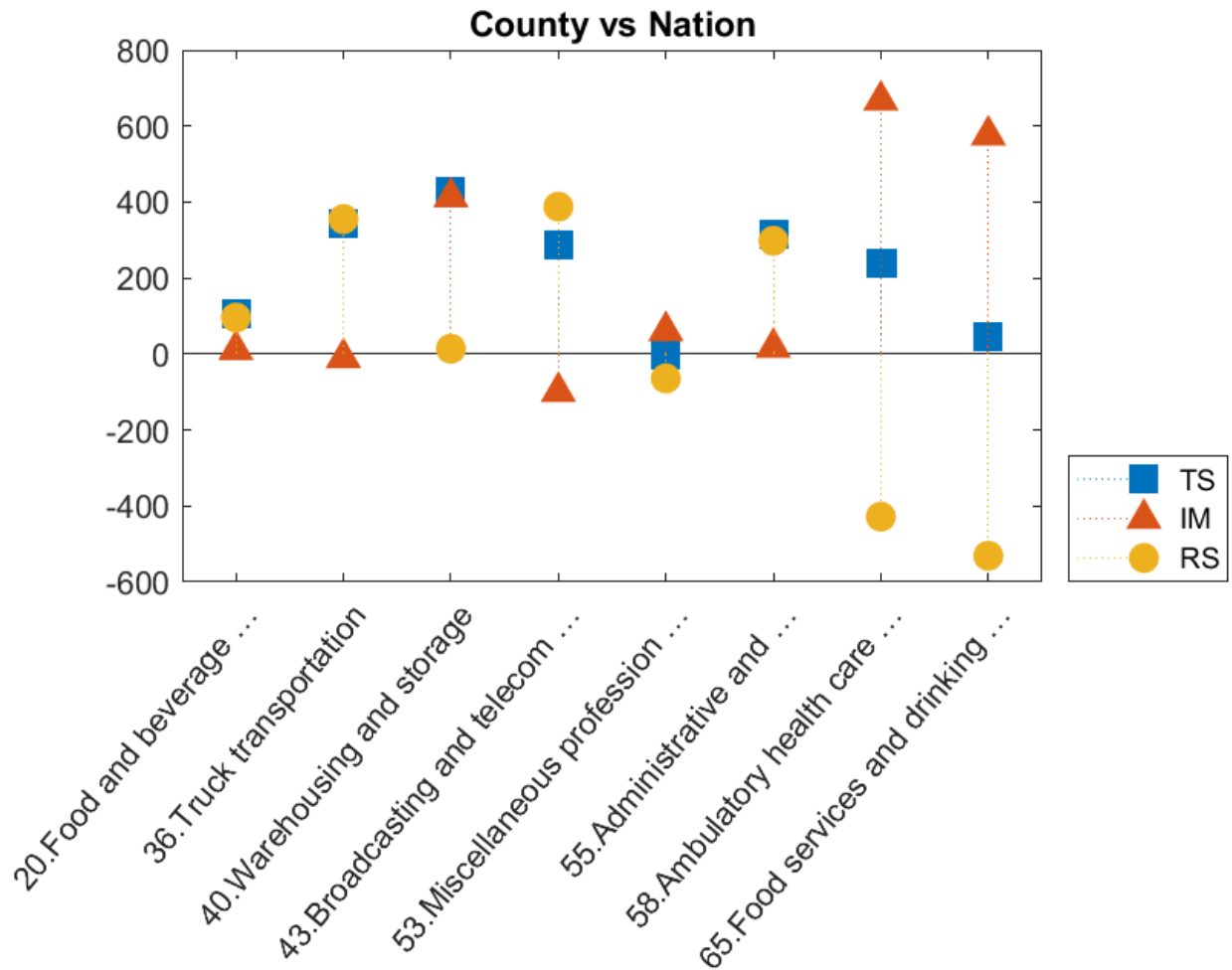
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Muskingum County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Muskingum County, Ohio vs the U.S.

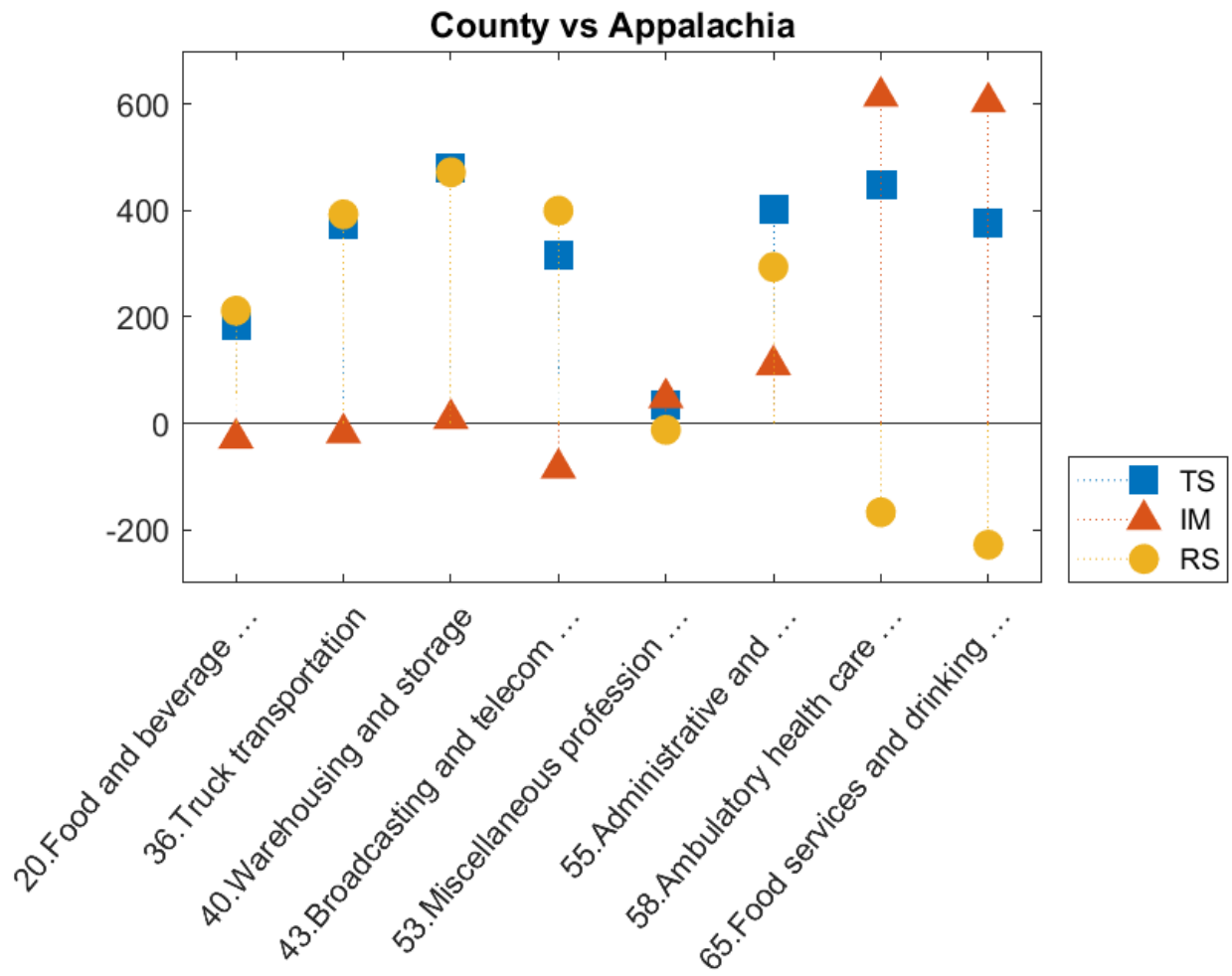


Chapter 23. Muskingum County, Ohio

Muskingum County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	79	107	11	96	890
36	Truck transportation	32	345	-10	355	657
40	Warehousing and storage	56	427	413	14	977
43	Broadcasting and telecom ...	28	289	-99	388	568
53	Miscellaneous profession ...	40	-3	61	-64	396
55	Administrative and ...	91	315	17	298	1,213
58	Ambulatory health care ...	215	240	668	-428	2,360
65	Food services and drinking ...	341	45	576	-531	3,408

Selected SSA Components for Muskingum County, Ohio vs the Appalachian Region

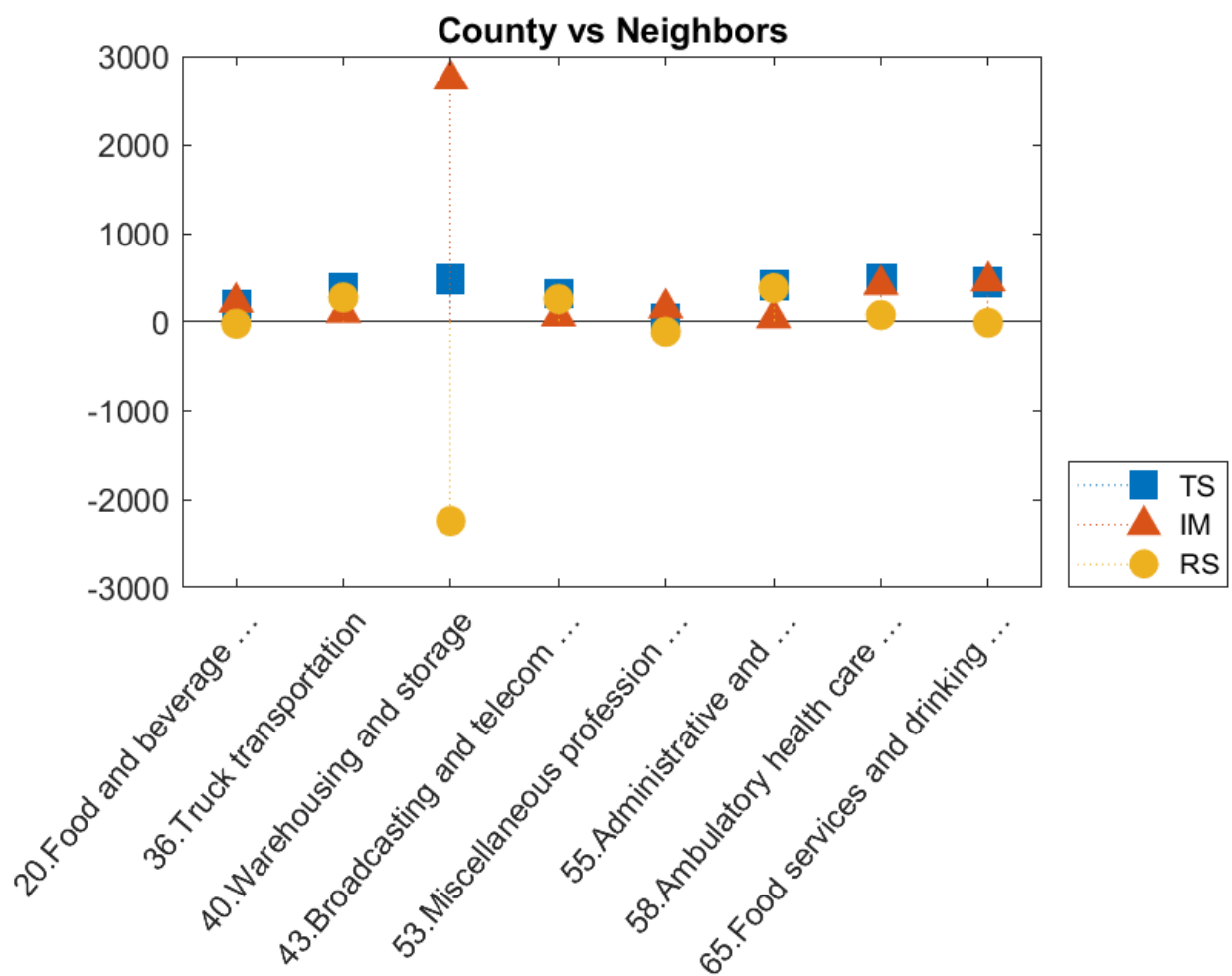


Chapter 23. Muskingum County, Ohio

Selected SSA Components for Muskingum County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	2	184	-28	212	890
36	Truck transportation	1	375	-18	393	657
40	Warehousing and storage	2	481	9	472	977
43	Broadcasting and telecom ...	1	316	-84	400	568
53	Miscellaneous profession ...	1	36	48	-12	396
55	Administrative and ...	3	404	110	294	1,213
58	Ambulatory health care ...	6	448	615	-167	2,360
65	Food services and drinking ...	10	376	604	-228	3,408

Selected SSA Components for Muskingum County, Ohio vs Neighbors



**Selected SSA Components for Muskingum County, Ohio vs Neighbors for
Selected Industries**

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	-15	201	221	-20	890
36	Truck transportation	-6	382	106	276	657
40	Warehousing and storage	-10	494	2,737	-2,243	977
43	Broadcasting and telecom ...	-5	322	65	257	568
53	Miscellaneous profession ...	-8	45	155	-110	396
55	Administrative and ...	-17	424	43	381	1,213
58	Ambulatory health care ...	-40	495	418	77	2,360
65	Food services and drinking ...	-64	450	459	-9	3,408

Chapter 24. Noble County, Ohio

Employment in Noble County, Ohio, declined from 3,503 in 2005 to 3,051 in 2018, for a change of -452, or -12.9%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Noble County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	393	-852	34	-886
vs. Appalachia	9	-466	94	-560
vs. Neighbors	-216	-240	272	-512

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Noble County, Ohio, in comparison to at least one of the three referent regions.

Chapter 24. Noble County, Ohio

Industry Group Membership for Noble County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
05	Mining, except coal, oil ...	F III c iii	no	yes	yes	yes
10	Nonmetallic mineral prod ...	F I a i	no	yes	yes	yes
20	Food and beverage ...	E I c i	no	yes	yes	yes
26	Chemical products	F III c iii	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
52	Computer systems design ...	B I a i	yes	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
63	Amusements, gambling, ...	B I a i	yes	yes	yes	yes
64	Accommodation	A I a i	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes
66	Other services, exc. gov ...	F III c iii	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Noble County, Ohio vs. the United States

Groups a, b, and c are from Noble County, Ohio vs. Appalachia

Groups i, ii, and iii are from Noble County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Noble County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Noble County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Noble County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Noble County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

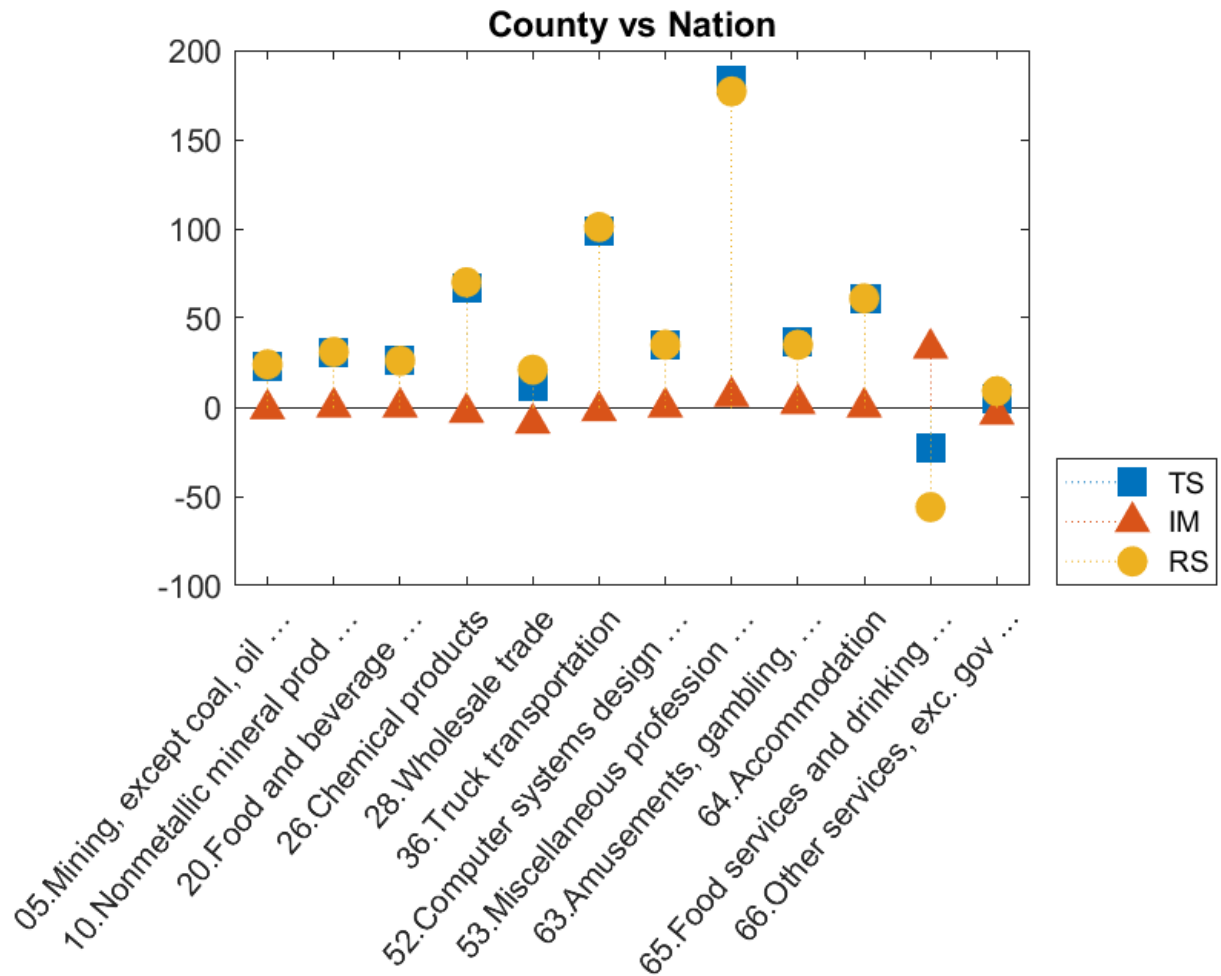
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Noble County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Noble County, Ohio vs the U.S.

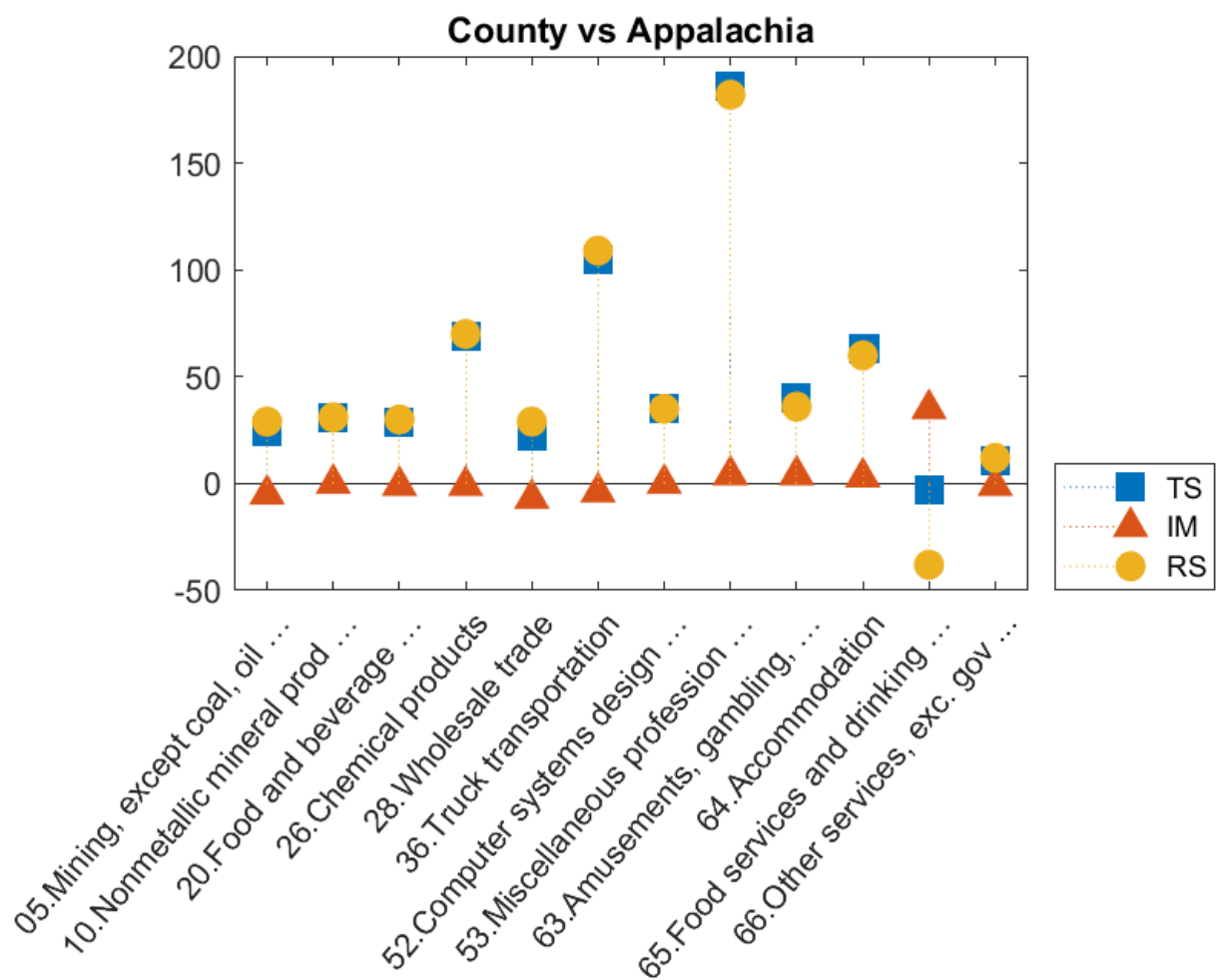


Chapter 24. Noble County, Ohio

Noble County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	1	23	-1	24	37
10	Nonmetallic mineral prod ...	0	31	0	31	31
20	Food and beverage ...	3	26	0	26	54
26	Chemical products	2	67	-3	70	86
28	Wholesale trade	10	12	-9	21	114
36	Truck transportation	6	99	-2	101	162
52	Computer systems design ...	0	35	0	35	35
53	Miscellaneous profession ...	4	183	6	177	220
63	Amusements, gambling, ...	3	37	2	35	64
64	Accommodation	2	61	0	61	80
65	Food services and drinking ...	20	-23	33	-56	171
66	Other services, exc. gov ...	6	5	-4	9	65

Selected SSA Components for Noble County, Ohio vs the Appalachian Region

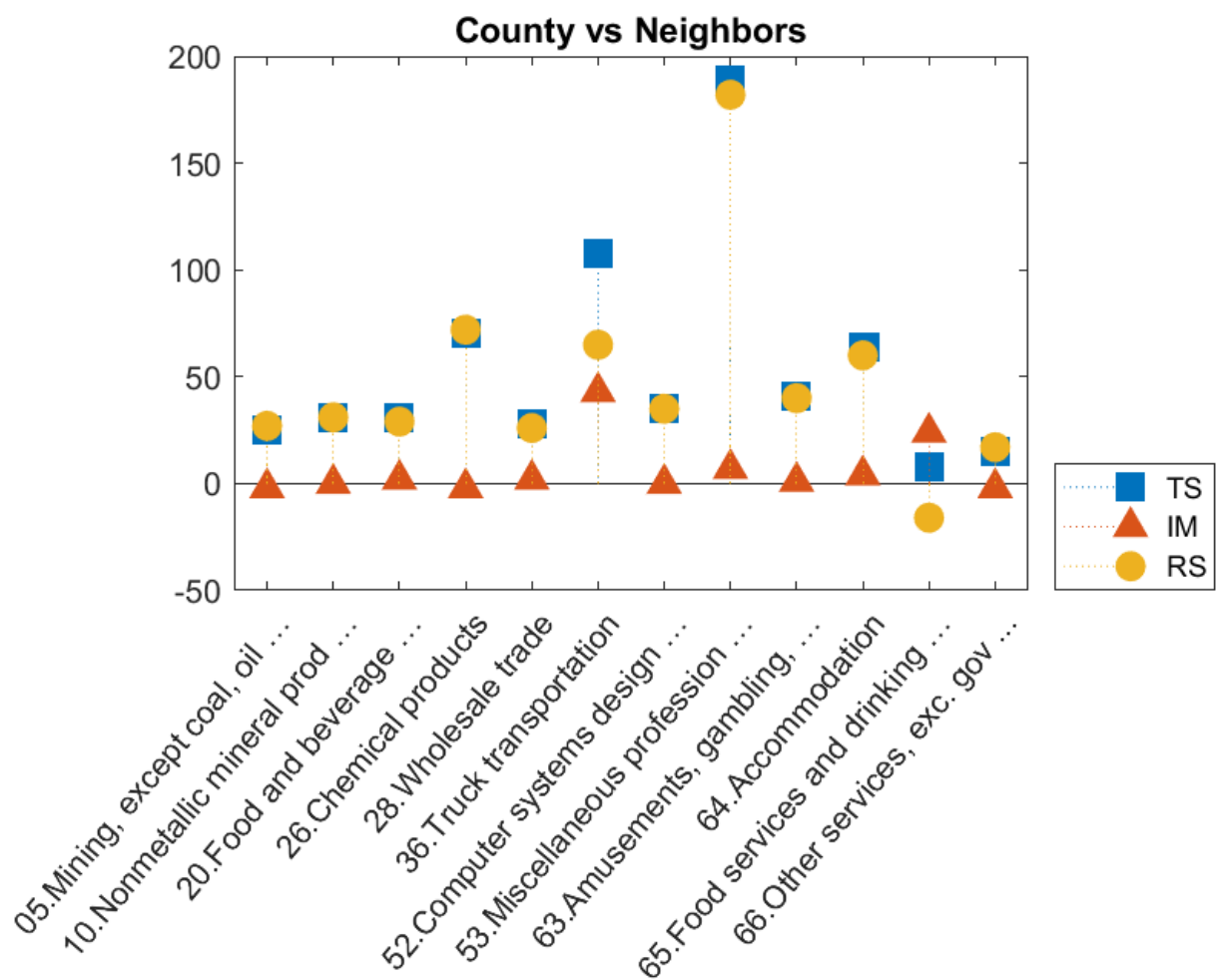


Chapter 24. Noble County, Ohio

Selected SSA Components for Noble County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	0	24	-5	29	37
10	Nonmetallic mineral prod ...	0	31	0	31	31
20	Food and beverage ...	0	29	-1	30	54
26	Chemical products	0	69	-1	70	86
28	Wholesale trade	0	22	-7	29	114
36	Truck transportation	0	105	-4	109	162
52	Computer systems design ...	0	35	0	35	35
53	Miscellaneous profession ...	0	186	4	182	220
63	Amusements, gambling, ...	0	40	4	36	64
64	Accommodation	0	63	3	60	80
65	Food services and drinking ...	1	-3	35	-38	171
66	Other services, exc. gov ...	0	11	-1	12	65

Selected SSA Components for Noble County, Ohio vs Neighbors



Chapter 24. Noble County, Ohio

Selected SSA Components for Noble County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
05	Mining, except coal, oil ...	-1	25	-2	27	37
10	Nonmetallic mineral prod ...	-0	31	0	31	31
20	Food and beverage ...	-2	31	2	29	54
26	Chemical products	-1	70	-2	72	86
28	Wholesale trade	-6	28	2	26	114
36	Truck transportation	-3	108	43	65	162
52	Computer systems design ...	-0	35	0	35	35
53	Miscellaneous profession ...	-2	189	7	182	220
63	Amusements, gambling, ...	-2	41	1	40	64
64	Accommodation	-1	64	4	60	80
65	Food services and drinking ...	-11	8	24	-16	171
66	Other services, exc. gov ...	-3	15	-2	17	65

Chapter 25. Perry County, Ohio

Employment in Perry County, Ohio, declined from 6,670 in 2005 to 6,439 in 2018, for a change of -231, or -3.46%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Perry County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	750	-987	-298	-689
vs. Appalachia	17	-251	-167	-84
vs. Neighbors	132	-364	-338	-26

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Perry County, Ohio, in comparison to at least one of the three referent regions.

Chapter 25. Perry County, Ohio

Industry Group Membership for Perry County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
04	Coal Mining	F III c i	no	yes	yes	yes
12	Fabricated metal products	F III c i	no	yes	yes	yes
28	Wholesale trade	F III c i	no	yes	yes	yes
30	Food and beverage stores	F III c i	no	yes	yes	yes
31	General merchandise	F III c iii	no	yes	yes	yes
...						
54	Management of companies	A I a iii	yes	yes	yes	yes
...						
55	Administrative and ...	A I a i	yes	yes	yes	yes
56	Waste management and ...	A I b i	yes	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
61	Social assistance	B I a i	yes	yes	yes	yes
65	Food services and drinking	B II a ii	yes	yes	yes	yes
...						

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Perry County, Ohio vs. the United States

Groups a, b, and c are from Perry County, Ohio vs. Appalachia

Groups i, ii, and iii are from Perry County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Perry County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Perry County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Perry County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Perry County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

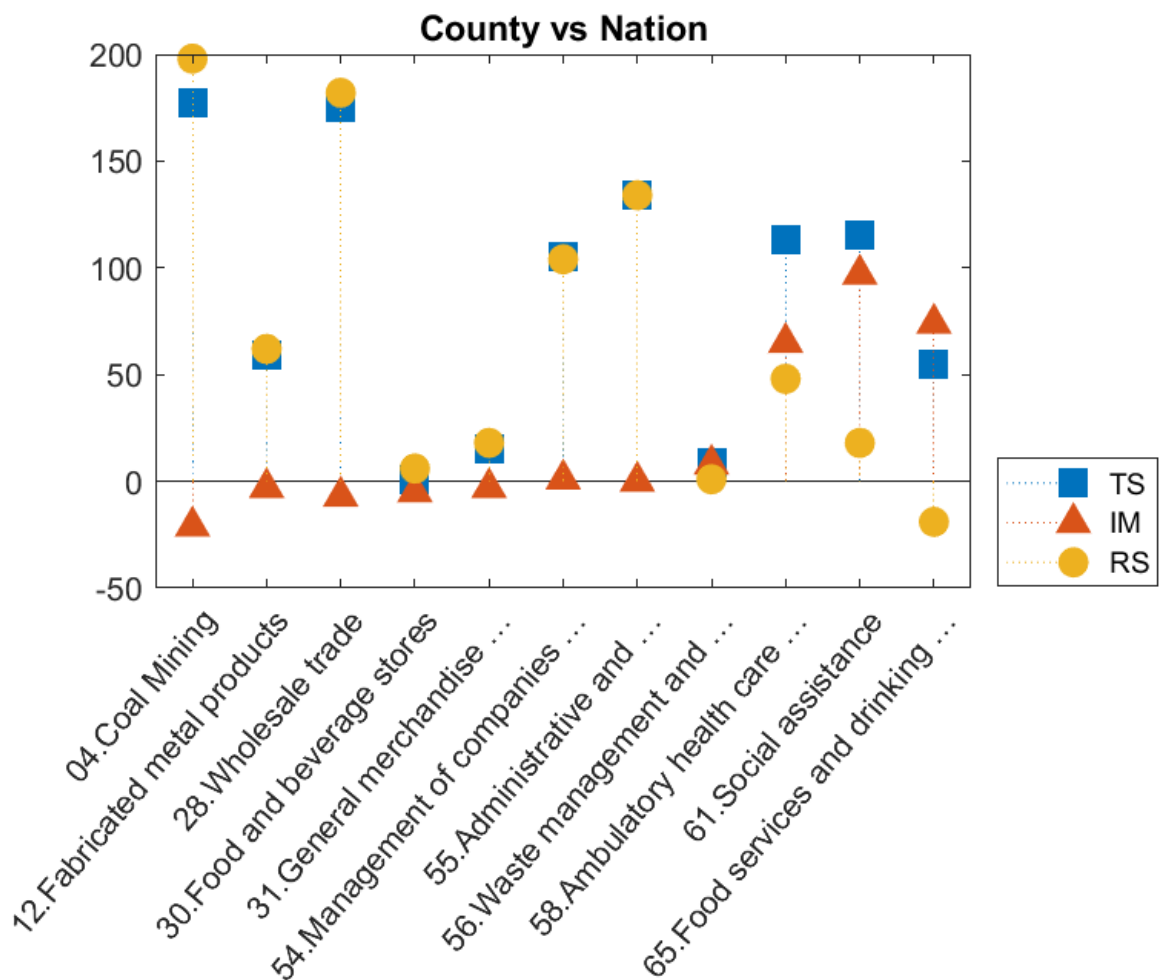
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Perry County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Perry County, Ohio vs the U.S.

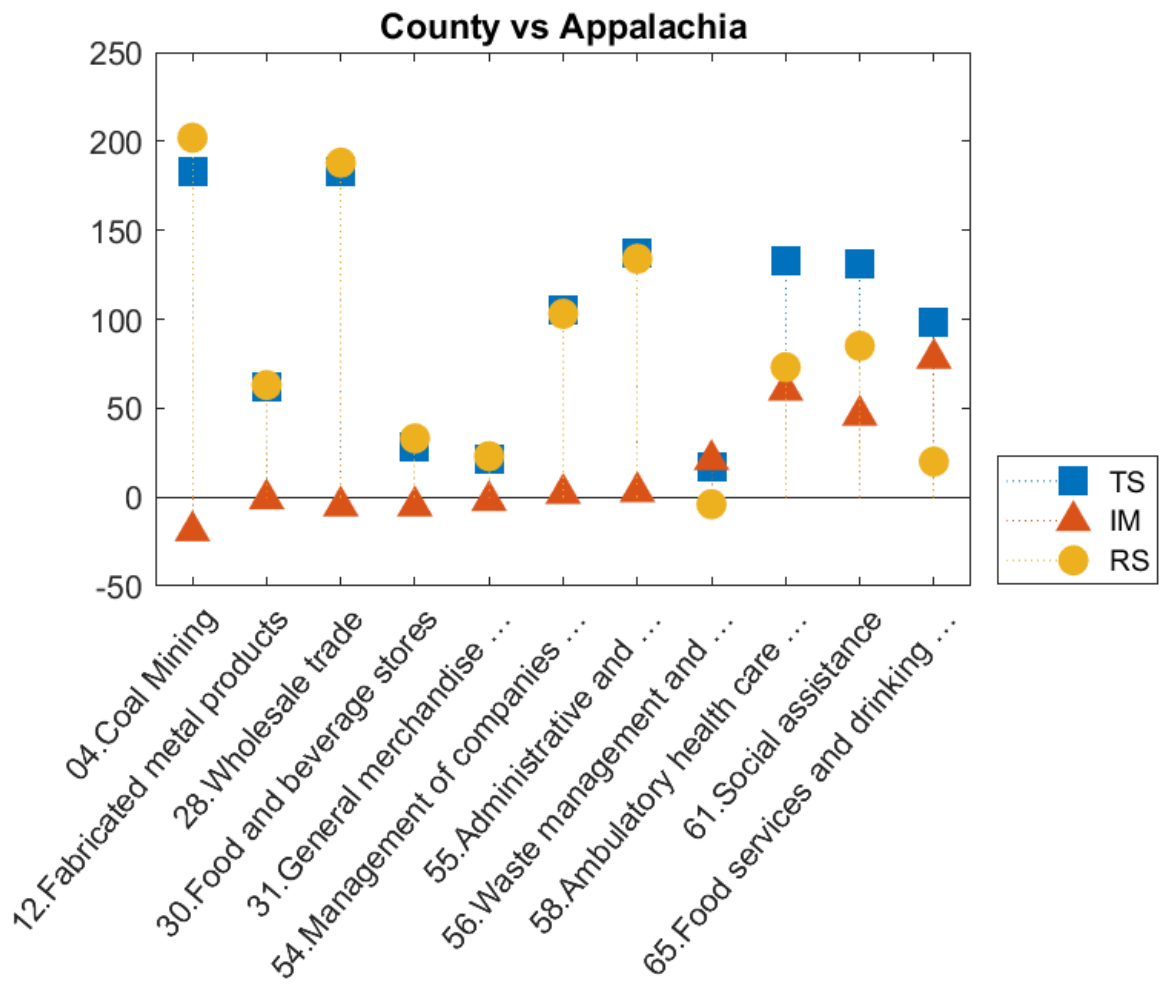


Chapter 25. Perry County, Ohio

Perry County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	6	177	-21	198	233
12	Fabricated metal products	2	59	-3	62	82
28	Wholesale trade	8	175	-7	182	257
30	Food and beverage stores	28	1	-5	6	273
31	General merchandise ...	6	15	-3	18	72
54	Management of companies ...	0	105	1	104	109
55	Administrative and ...	2	134	0	134	159
56	Waste management and ...	8	9	8	1	87
58	Ambulatory health care ...	21	113	65	48	318
61	Social assistance	17	115	97	18	279
65	Food services and drinking ...	44	55	74	-19	488

Selected SSA Components for Perry County, Ohio vs the Appalachian Region

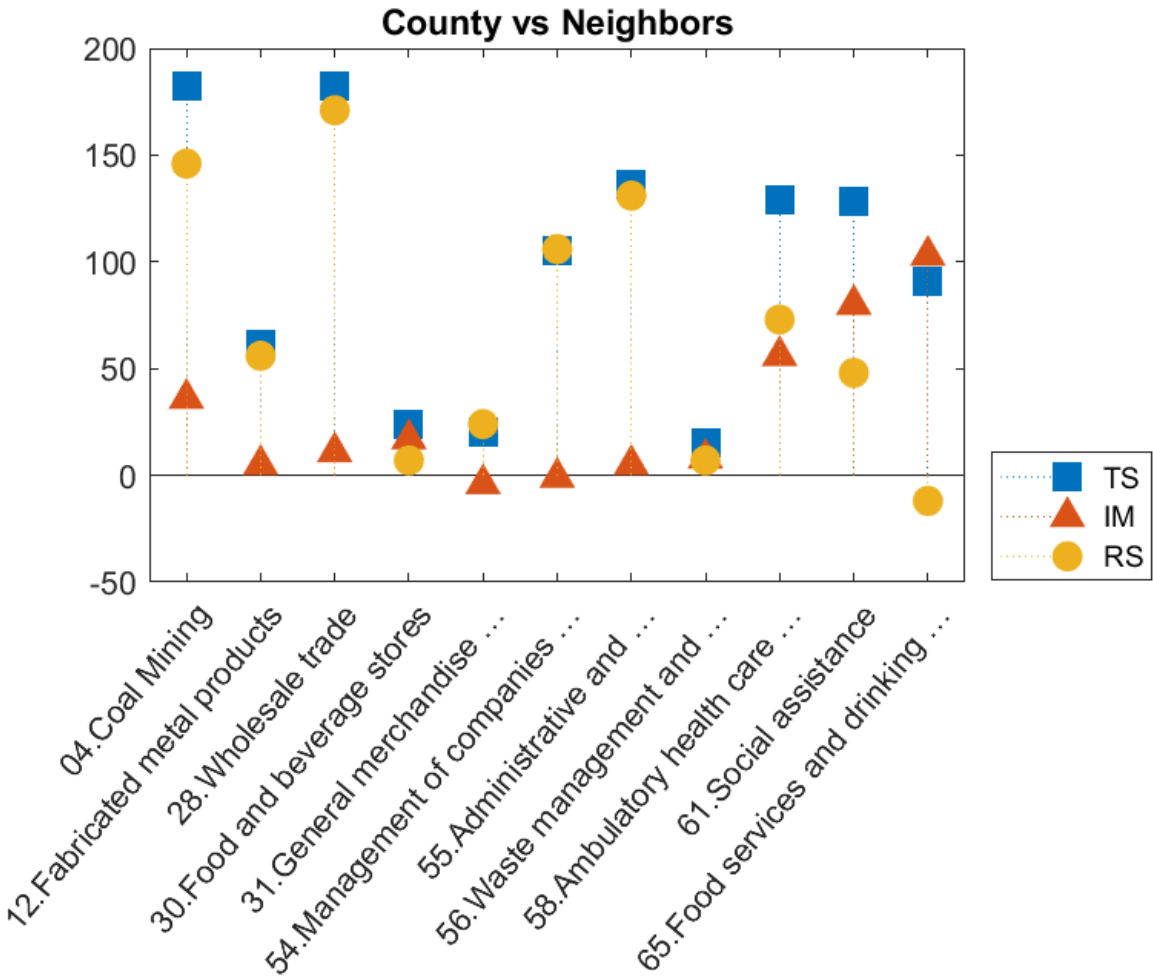


Chapter 25. Perry County, Ohio

Selected SSA Components for Perry County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	0	183	-19	202	233
12	Fabricated metal products	0	62	-1	63	82
28	Wholesale trade	0	183	-5	188	257
30	Food and beverage stores	1	28	-5	33	273
31	General merchandise ...	0	21	-2	23	72
54	Management of companies ...	0	105	2	103	109
55	Administrative and ...	0	137	3	134	159
56	Waste management and ...	0	17	21	-4	87
58	Ambulatory health care ...	1	133	60	73	318
61	Social assistance	1	131	46	85	279
65	Food services and drinking ...	1	98	78	20	488

Selected SSA Components for Perry County, Ohio vs Neighbors



Chapter 25. Perry County, Ohio

Selected SSA Components for Perry County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
04	Coal Mining	1	182	36	146	233
12	Fabricated metal products	0	61	5	56	82
28	Wholesale trade	1	182	11	171	257
30	Food and beverage stores	5	24	17	7	273
31	General merchandise ...	1	20	-4	24	72
54	Management of companies ...	0	105	-1	106	109
55	Administrative and ...	0	136	5	131	159
56	Waste management and ...	1	15	8	7	87
58	Ambulatory health care ...	4	129	56	73	318
61	Social assistance	3	128	80	48	279
65	Food services and drinking ...	8	91	103	-12	488

Chapter 26. Pike County, Ohio

Employment in Pike County, Ohio, declined from 9,969 in 2005 to 9,803 in 2018, for a change of -166, or -1.67%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Pike County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	1,125	-1,291	-845	-446
vs. Appalachia	29	-200	-531	331
vs. Neighbors	-460	297	-1,909	2,206

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Pike County, Ohio, in comparison to at least one of the three referent regions.

Chapter 26. Pike County, Ohio

Industry Group Membership for Pike County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
09	Wood products	F III c iii	no	yes	yes	yes
29	Motor vehicle and parts ...	F III a i	no	yes	yes	yes
30	Food and beverage stores	F III c iii	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
40	Warehousing and storage	E I a iii	no	yes	yes	yes
45	Federal Reserve banks, ...	F III c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
55	Administrative and ...	A I a i	yes	yes	yes	yes
56	Waste management and ...	A I a i	yes	yes	yes	yes
57	Educational services	F III a iii	no	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
61	Social assistance	B II a i	yes	yes	yes	yes
65	Food services and drinking ...	B V e ii	yes	no	no	yes
66	Other services, exc. gov ...	F III c i	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Pike County, Ohio vs. the United States

Groups a, b, and c are from Pike County, Ohio vs. Appalachia

Groups i, ii, and iii are from Pike County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Pike County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Pike County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Pike County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Pike County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

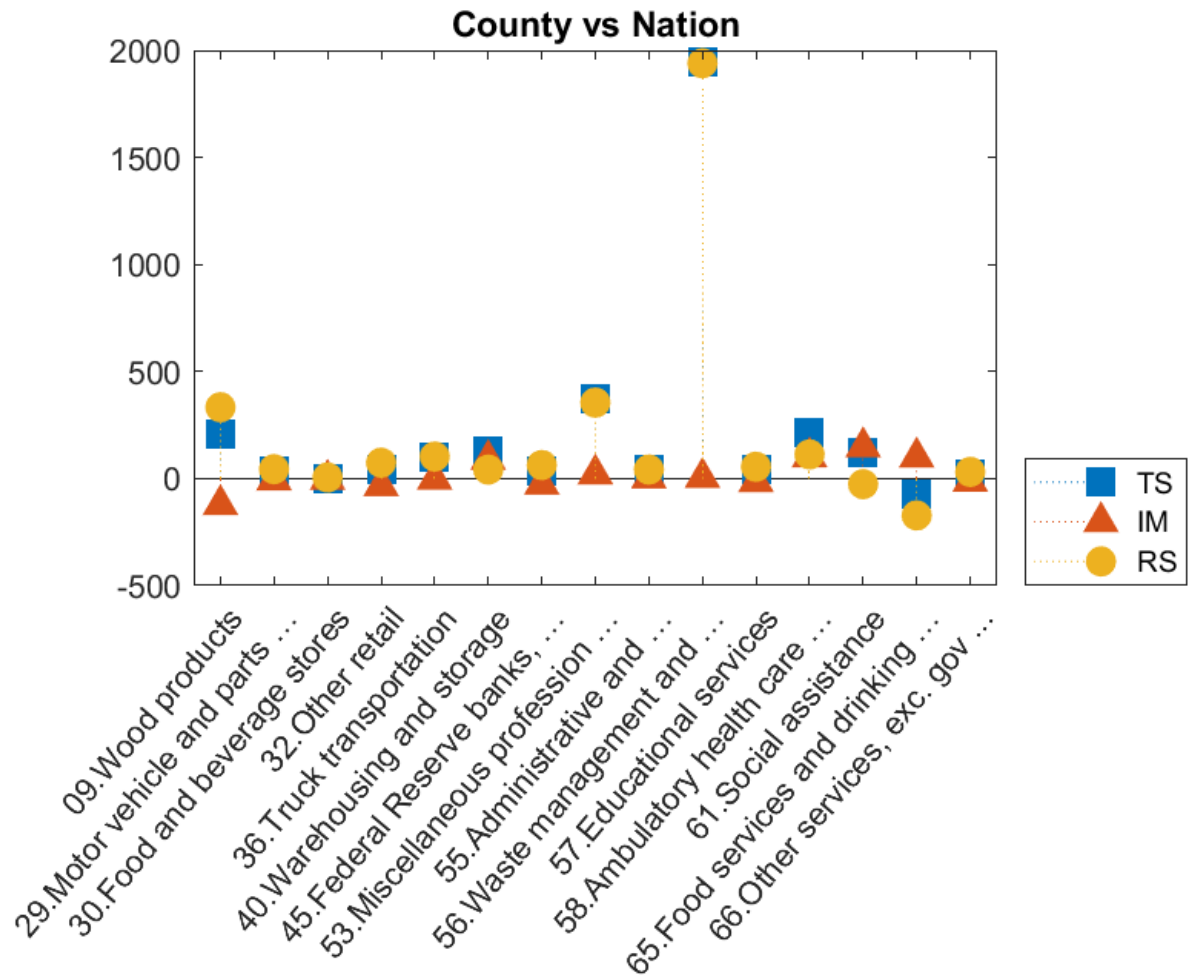
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Pike County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Pike County, Ohio vs the U.S.

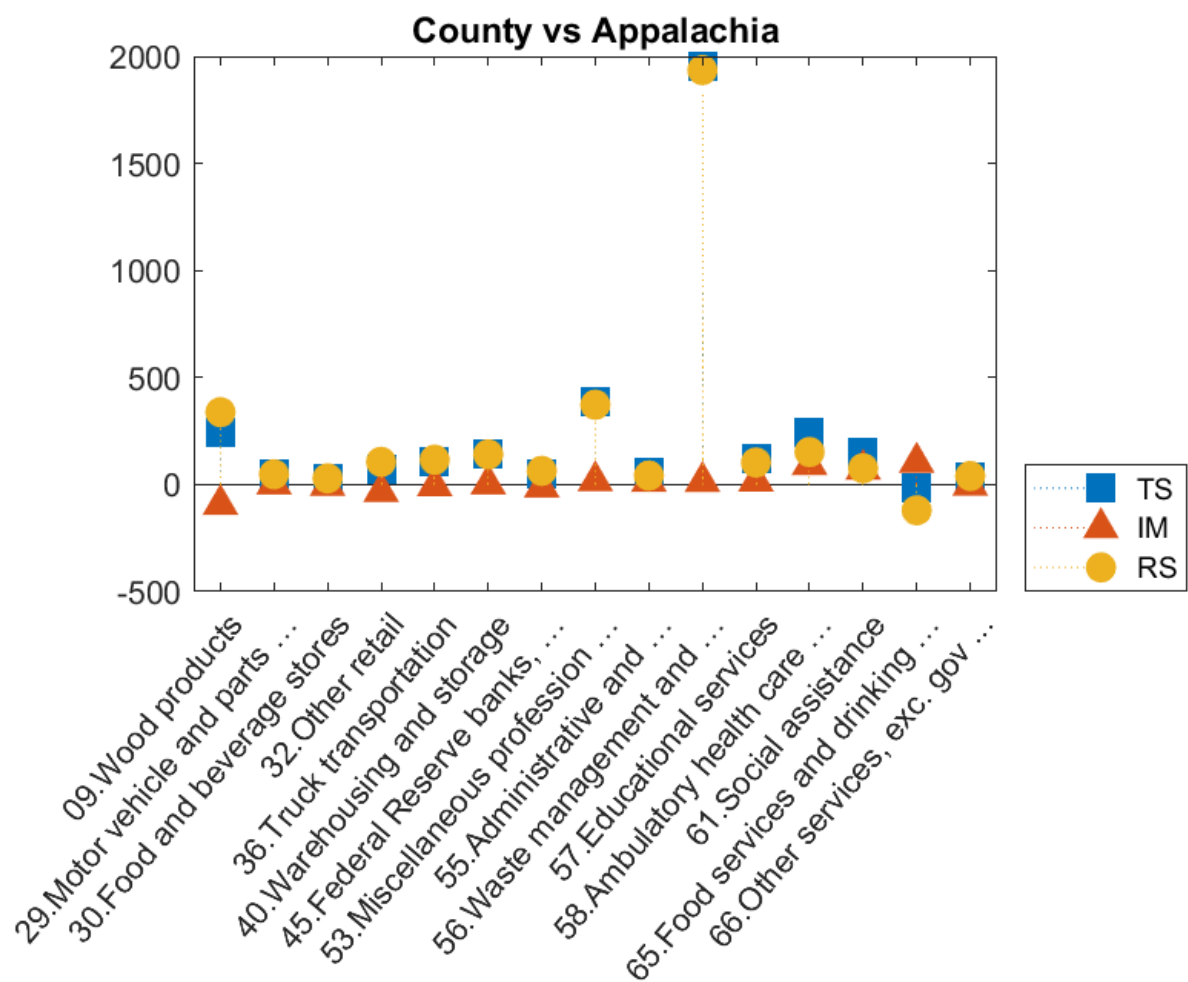


Chapter 26. Pike County, Ohio

Pike County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	35	211	-122	333	557
29	Motor vehicle and parts ...	13	37	-7	44	169
30	Food and beverage stores	24	1	-4	5	236
32	Other retail	34	40	-34	74	376
36	Truck transportation	10	100	-3	103	200
40	Warehousing and storage	12	131	89	42	249
45	Federal Reserve banks, ...	15	36	-27	63	189
53	Miscellaneous profession ...	14	376	21	355	517
55	Administrative and ...	12	44	2	42	165
56	Waste management and ...	5	1,945	5	1,940	1,997
57	Educational services	81	40	-15	55	837
58	Ambulatory health care ...	33	214	101	113	535
61	Social assistance	26	122	148	-26	374
65	Food services and drinking ...	59	-72	100	-172	508
66	Other services, exc. gov ...	19	18	-13	31	207

Selected SSA Components for Pike County, Ohio vs the Appalachian Region

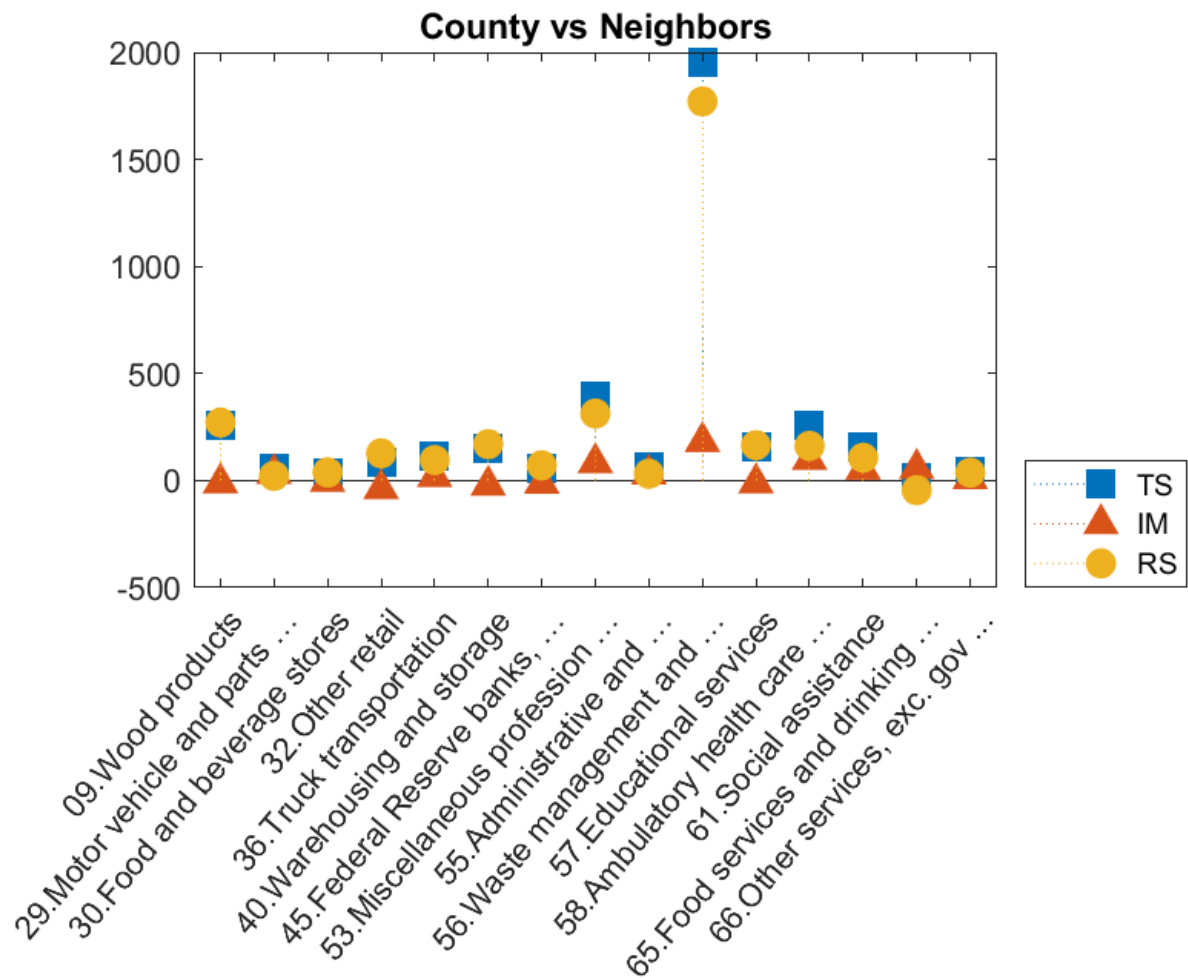


Chapter 26. Pike County, Ohio

Selected SSA Components for Pike County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	1	245	-93	338	557
29	Motor vehicle and parts ...	0	50	2	48	169
30	Food and beverage stores	1	25	-4	29	236
32	Other retail	1	73	-33	106	376
36	Truck transportation	0	110	-6	116	200
40	Warehousing and storage	0	143	2	141	249
45	Federal Reserve banks, ...	0	52	-12	64	189
53	Miscellaneous profession ...	0	390	17	373	517
55	Administrative and ...	0	57	15	42	165
56	Waste management and ...	0	1,950	14	1,936	1,997
57	Educational services	2	119	16	103	837
58	Ambulatory health care ...	1	245	93	152	535
61	Social assistance	1	147	71	76	374
65	Food services and drinking ...	2	-16	104	-120	508
66	Other services, exc. gov ...	1	37	-3	40	207

Selected SSA Components for Pike County, Ohio vs Neighbors



Chapter 26. Pike County, Ohio

Selected SSA Components for Pike County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
09	Wood products	-14	260	-11	271	557
29	Motor vehicle and parts ...	-5	55	33	22	169
30	Food and beverage stores	-10	34	-4	38	236
32	Other retail	-14	89	-38	127	376
36	Truck transportation	-4	114	18	96	200
40	Warehousing and storage	-5	148	-22	170	249
45	Federal Reserve banks, ...	-6	58	-13	71	189
53	Miscellaneous profession ...	-6	396	83	313	517
55	Administrative and ...	-5	62	30	32	165
56	Waste management and ...	-2	1,953	182	1,771	1,997
57	Educational services	-33	154	-11	165	837
58	Ambulatory health care ...	-13	260	98	162	535
61	Social assistance	-10	159	52	107	374
65	Food services and drinking ...	-24	11	56	-45	508
66	Other services, exc. gov ...	-8	45	8	37	207

Chapter 27. Ross County, Ohio

Employment in Ross County, Ohio, grew from 27,077 in 2005 to 29,074 in 2018, for a change of 1,997, or 7.38%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Ross County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	3,056	-1,059	-401	-658
vs. Appalachia	89	1,900	913	987
vs. Neighbors	-959	2,955	1,921	1,034

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Ross County, Ohio, in comparison to at least one of the three referent regions.

Chapter 27. Ross County, Ohio

Industry Group Membership for Ross County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
16	Motor vehicles, bodies ...	C III a i	yes	yes	yes	yes
29	Motor vehicle and parts ...	F III a i	no	yes	yes	yes
32	Other retail	F III c i	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
55	Administrative and ...	A I a ii	yes	yes	yes	yes
58	Ambulatory health care ...	B II b i	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
61	Social assistance	B II a i	yes	yes	yes	yes
65	Food services and drinking ...	B II a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Ross County, Ohio vs. the United States

Groups a, b, and c are from Ross County, Ohio vs. Appalachia

Groups i, ii, and iii are from Ross County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Ross County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Ross County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Ross County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Ross County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

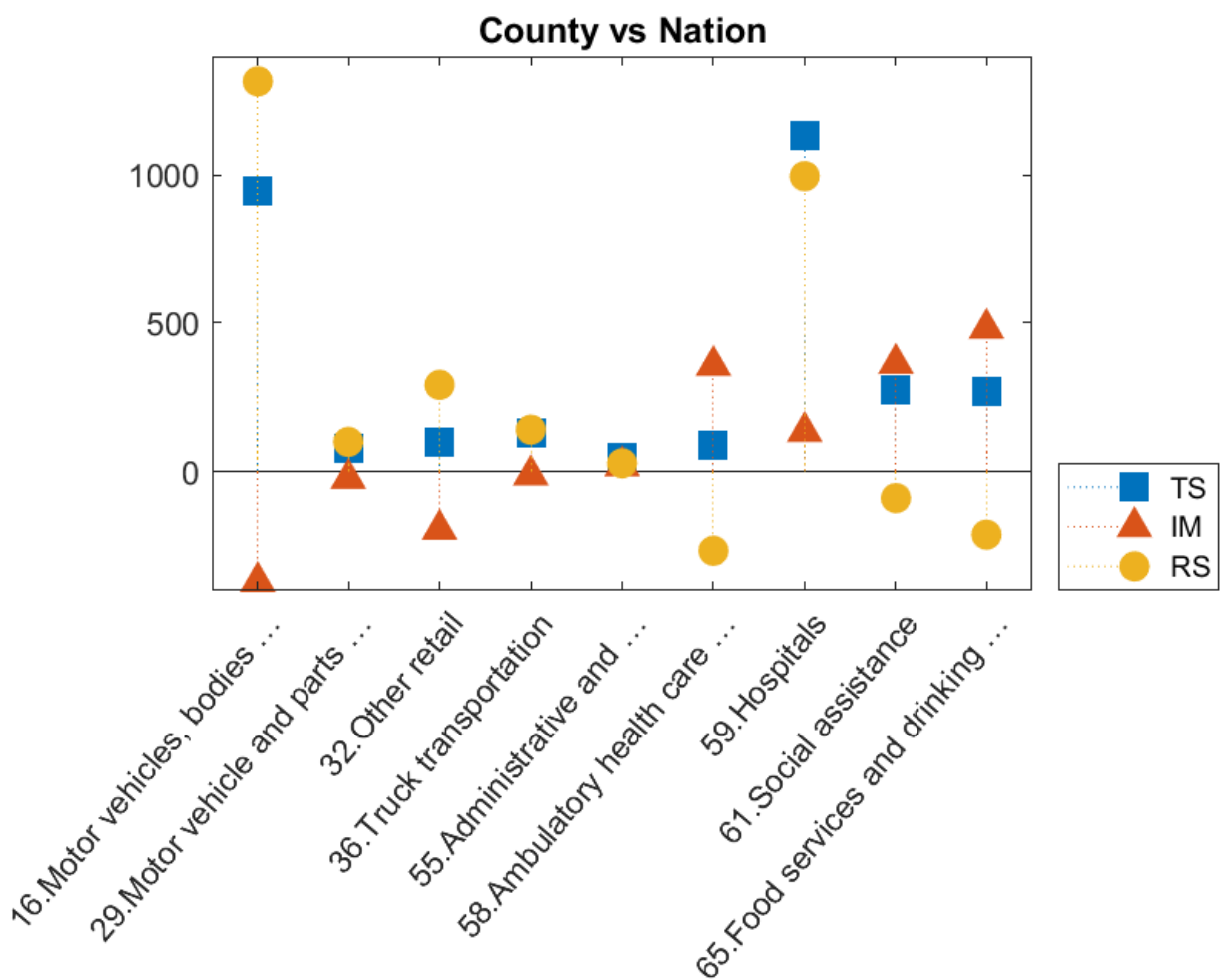
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Ross County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Ross County, Ohio vs the U.S.

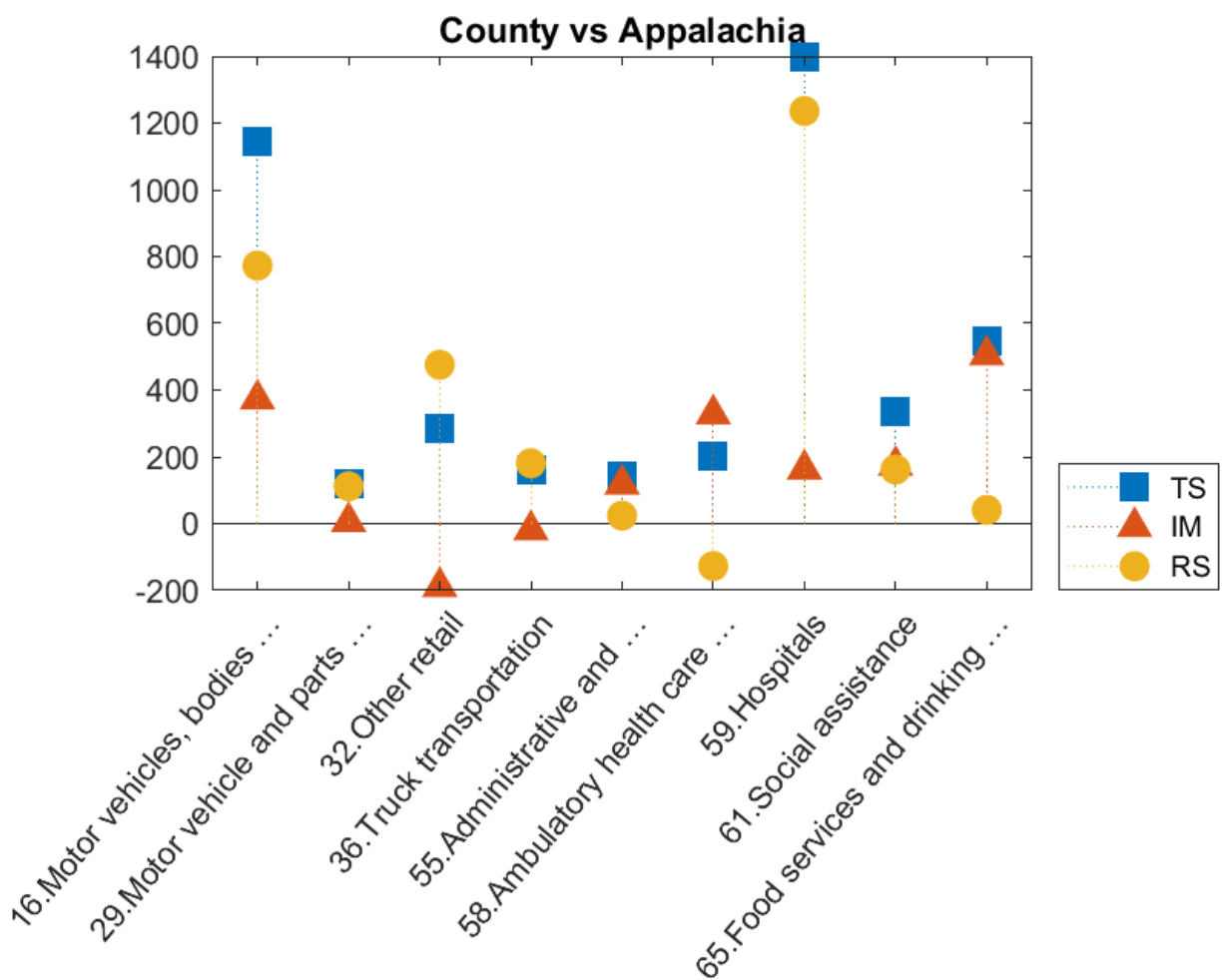


Chapter 27. Ross County, Ohio

Ross County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	207	946	-370	1,316	2,985
29	Motor vehicle and parts ...	43	77	-23	100	497
32	Other retail	196	98	-194	292	2,027
36	Truck transportation	33	130	-11	141	455
55	Administrative and ...	98	47	19	28	1,012
58	Ambulatory health care ...	115	91	357	-266	1,222
59	Hospitals	275	1,132	135	997	3,843
61	Social assistance	63	275	364	-89	893
65	Food services and drinking ...	285	270	482	-212	3,083

Selected SSA Components for Ross County, Ohio vs the Appalachian Region

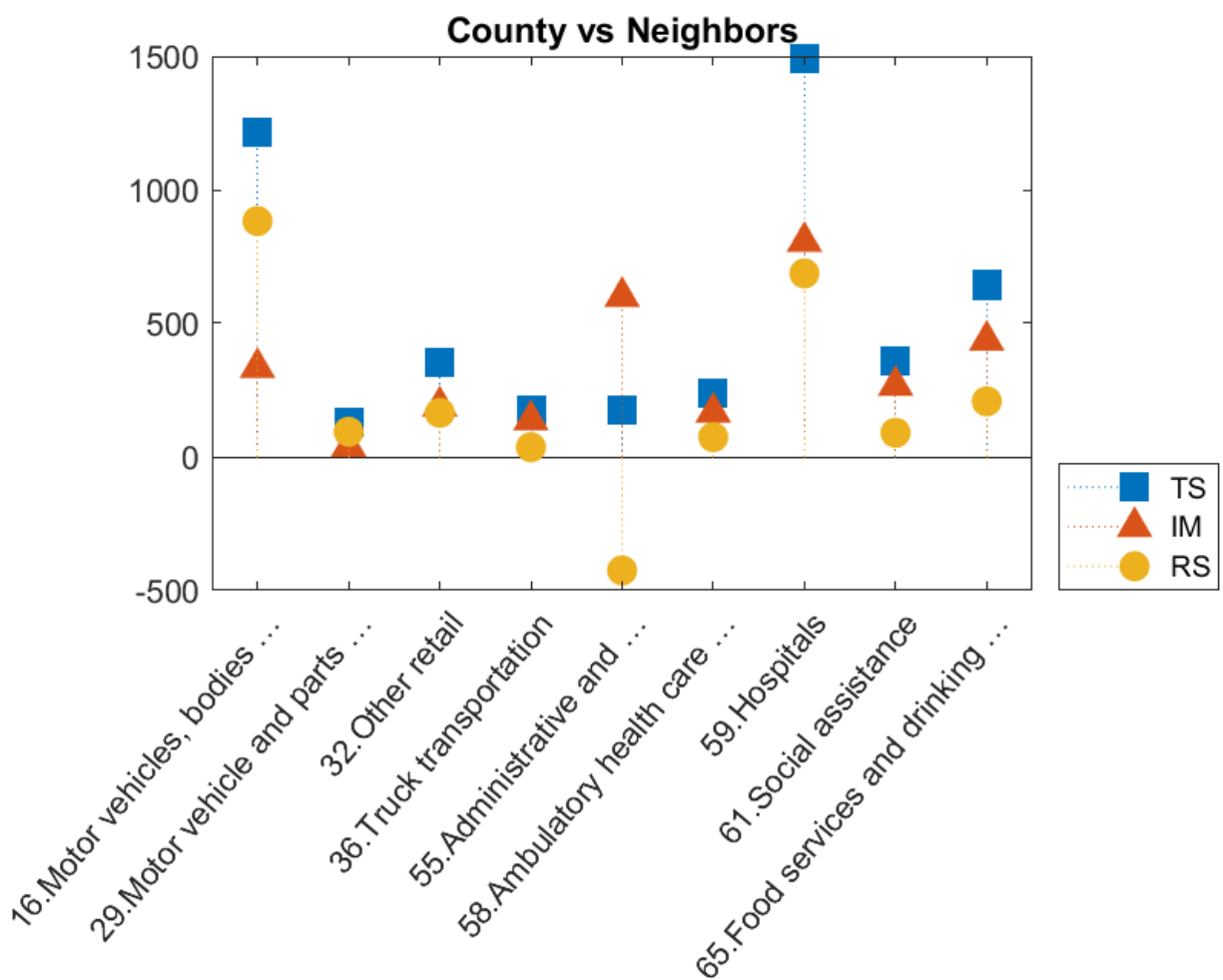


Chapter 27. Ross County, Ohio

Selected SSA Components for Ross County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	6	1,146	373	773	2,985
29	Motor vehicle and parts ...	1	118	6	112	497
32	Other retail	6	287	-189	476	2,027
36	Truck transportation	1	162	-19	181	455
55	Administrative and ...	3	142	118	24	1,012
58	Ambulatory health care ...	3	201	328	-127	1,222
59	Hospitals	8	1,399	163	1,236	3,843
61	Social assistance	2	336	174	162	893
65	Food services and drinking ...	9	546	505	41	3,083

Selected SSA Components for Ross County, Ohio vs Neighbors



Selected SSA Components for Ross County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
16	Motor vehicles, bodies ...	-65	1,217	334	883	2,985
29	Motor vehicle and parts ...	-13	132	38	94	497
32	Other retail	-61	355	190	165	2,027
36	Truck transportation	-10	174	138	36	455
55	Administrative and ...	-31	175	600	-425	1,012
58	Ambulatory health care ...	-36	241	167	74	1,222
59	Hospitals	-86	1,493	806	687	3,843
61	Social assistance	-20	357	267	90	893
65	Food services and drinking ...	-90	644	436	208	3,083

Chapter 28. Scioto County, Ohio

Employment in Scioto County, Ohio, declined from 25,347 in 2005 to 23,276 in 2018, for a change of -2,071, or -8.17%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Scioto County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,855	-4,929	731	-5,660
vs. Appalachia	85	-2,153	967	-3,120
vs. Neighbors	-1,903	-172	1,676	-1,848

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Scioto County, Ohio, in comparison to at least one of the three referent regions.

Chapter 28. Scioto County, Ohio

Industry Group Membership for Scioto County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
27	Plastics and rubber prod...	D III a i	no	yes	yes	yes
29	Motor vehicle and parts ...	F III a i	no	yes	yes	yes
31	General merchandise ...	F III c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B II b ii	yes	yes	yes	yes
59	Hospitals	E I a i	no	yes	yes	yes
61	Social assistance	B V e i	yes	no	no	yes
65	Food services and drinking ...	B V b i	yes	no	yes	yes
68	Government	F III a i	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Scioto County, Ohio vs. the United States

Groups a, b, and c are from Scioto County, Ohio vs. Appalachia

Groups i, ii, and iii are from Scioto County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Scioto County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Scioto County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Scioto County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Scioto County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

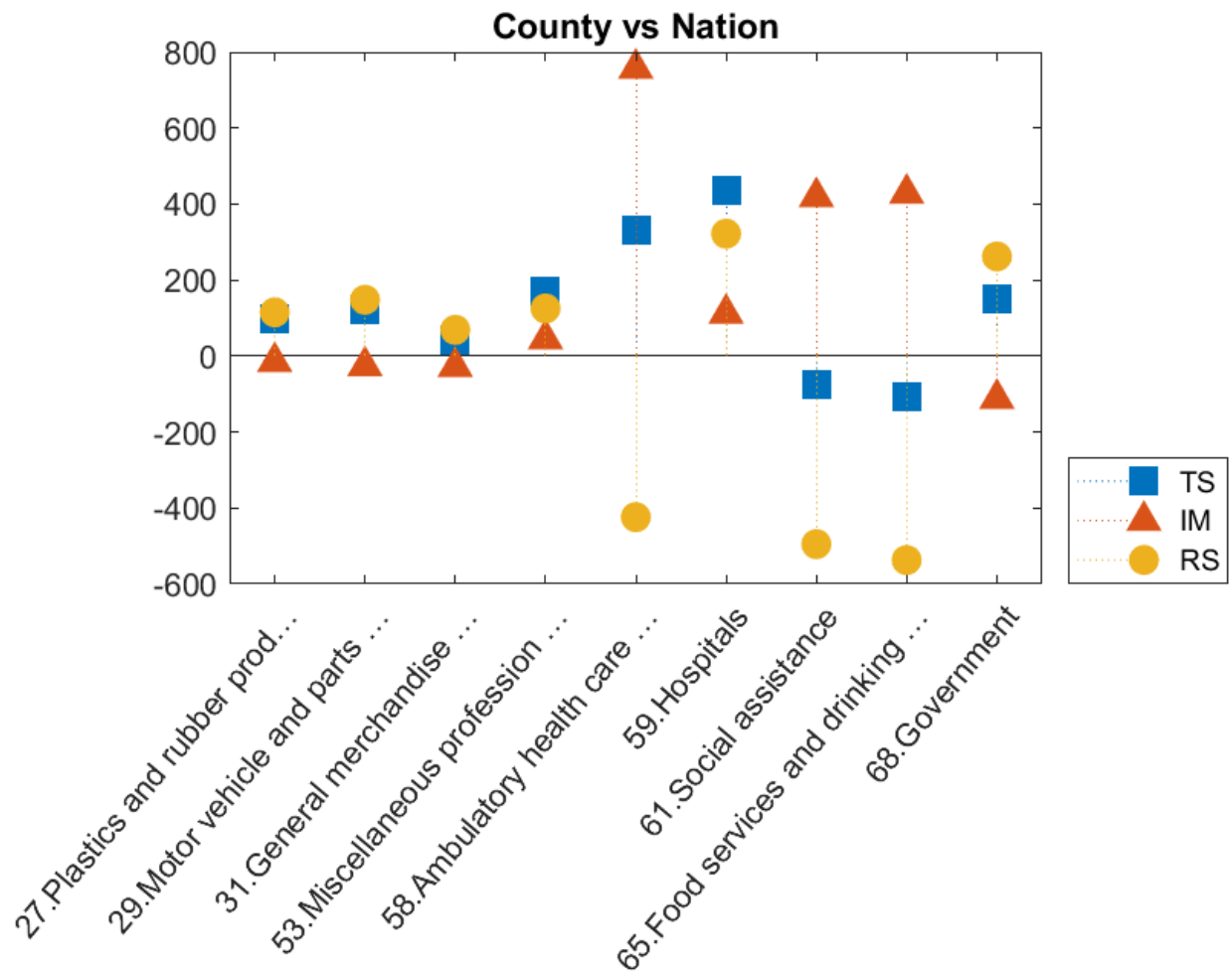
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Scioto County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Scioto County, Ohio vs the U.S.

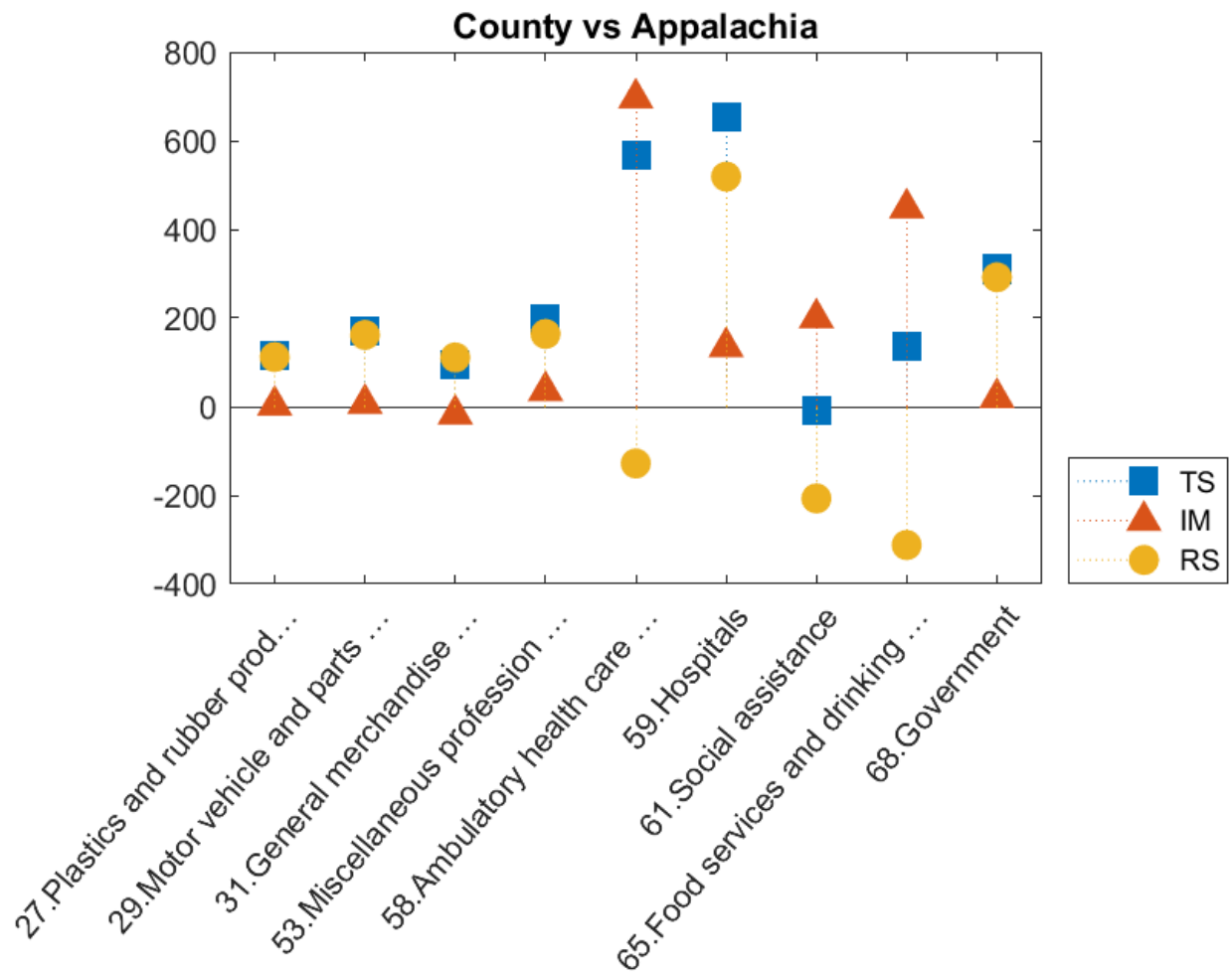


Chapter 28. Scioto County, Ohio

Scioto County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
27	Plastics and rubber prod...	15	100	-15	115	251
29	Motor vehicle and parts ...	48	122	-26	148	597
31	General merchandise ...	55	41	-28	69	586
53	Miscellaneous profession ...	30	170	45	125	469
58	Ambulatory health care ...	243	333	757	-424	2,733
59	Hospitals	227	434	112	322	2,671
61	Social assistance	72	-76	419	-495	634
65	Food services and drinking ...	253	-109	428	-537	2,387
68	Government	166	150	-112	262	1,792

Selected SSA Components for Scioto County, Ohio vs the Appalachian Region

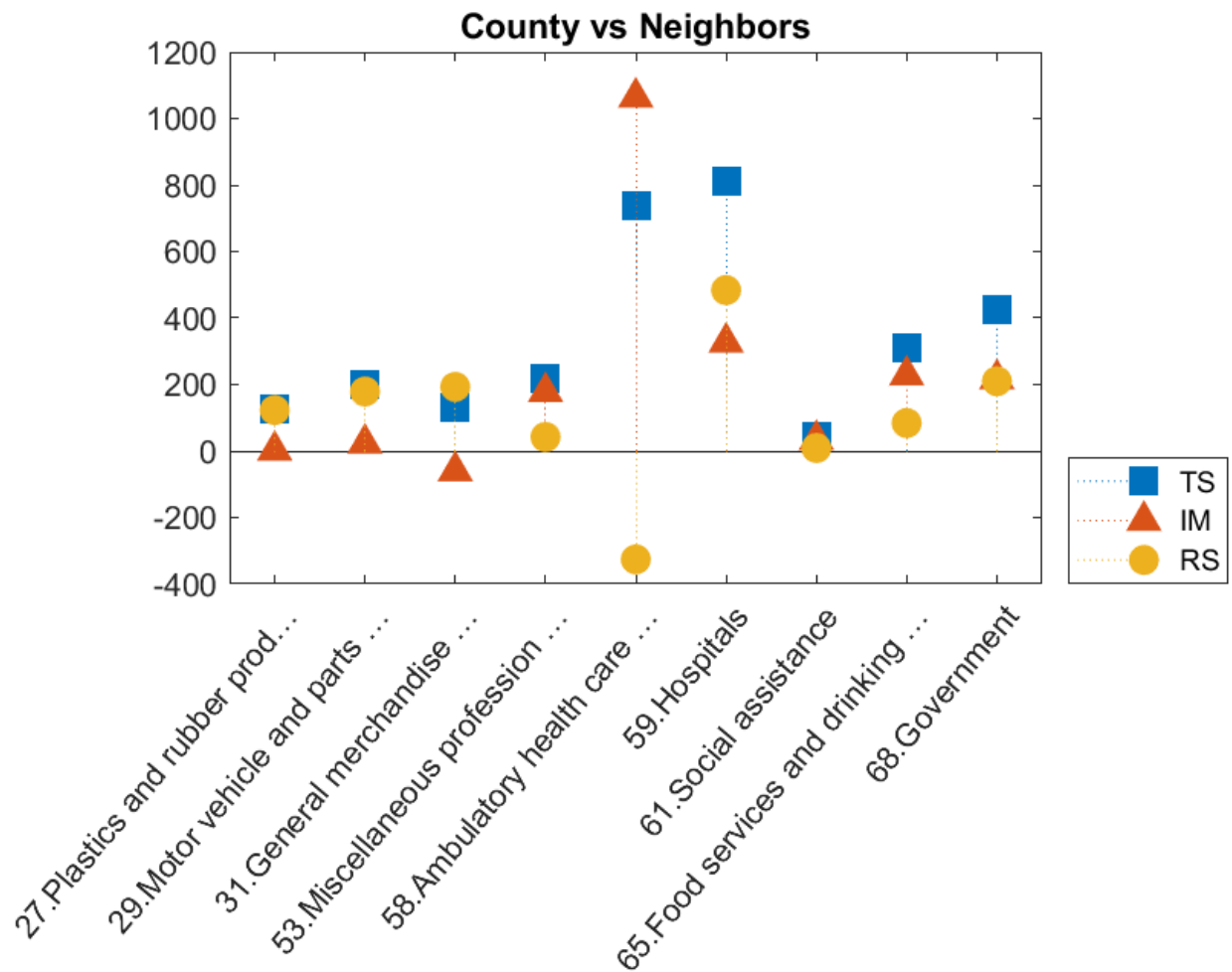


Chapter 28. Scioto County, Ohio

Selected SSA Components for Scioto County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
27	Plastics and rubber prod...	0	115	3	112	251
29	Motor vehicle and parts ...	1	169	7	162	597
31	General merchandise ...	2	94	-17	111	586
53	Miscellaneous profession ...	1	200	36	164	469
58	Ambulatory health care ...	7	568	696	-128	2,733
59	Hospitals	7	654	135	519	2,671
61	Social assistance	2	-7	200	-207	634
65	Food services and drinking ...	8	136	448	-312	2,387
68	Government	5	312	20	292	1,792

Selected SSA Components for Scioto County, Ohio vs Neighbors



Chapter 28. Scioto County, Ohio

Selected SSA Components for Scioto County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
27	Plastics and rubber prod...	-10	125	2	123	251
29	Motor vehicle and parts ...	-32	202	23	179	597
31	General merchandise ...	-37	133	-60	193	586
53	Miscellaneous profession ...	-20	220	178	42	469
58	Ambulatory health care ...	-162	738	1,064	-326	2,733
59	Hospitals	-151	811	327	484	2,671
61	Social assistance	-48	43	34	9	634
65	Food services and drinking ...	-168	312	228	84	2,387
68	Government	-111	427	217	210	1,792

Chapter 29. Trumbull County, Ohio

Employment in Trumbull County, Ohio, declined from 85,547 in 2005 to 66,664 in 2018, for a change of -18,883, or -22.07%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Trumbull County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	9,647	-28,532	-1,611	-26,921
vs. Appalachia	290	-19,174	1,204	-20,378
vs. Neighbors	-8,685	-10,202	-3,846	-6,356

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III — and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Trumbull County, Ohio, in comparison to at least one of the three referent regions.

Chapter 29. Trumbull County, Ohio

Industry Group Membership for Trumbull County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
13	Machinery	F III c i	no	yes	yes	yes
54	Management of companies	A II b ii	yes	yes	yes	yes
58	Ambulatory health care	B II b i	yes	yes	yes	yes
61	Social assistance	B II a ii	yes	yes	yes	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Trumbull County, Ohio vs. the United States

Groups a, b, and c are from Trumbull County, Ohio vs. Appalachia

Groups i, ii, and iii are from Trumbull County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Trumbull County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Trumbull County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Trumbull County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Trumbull County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

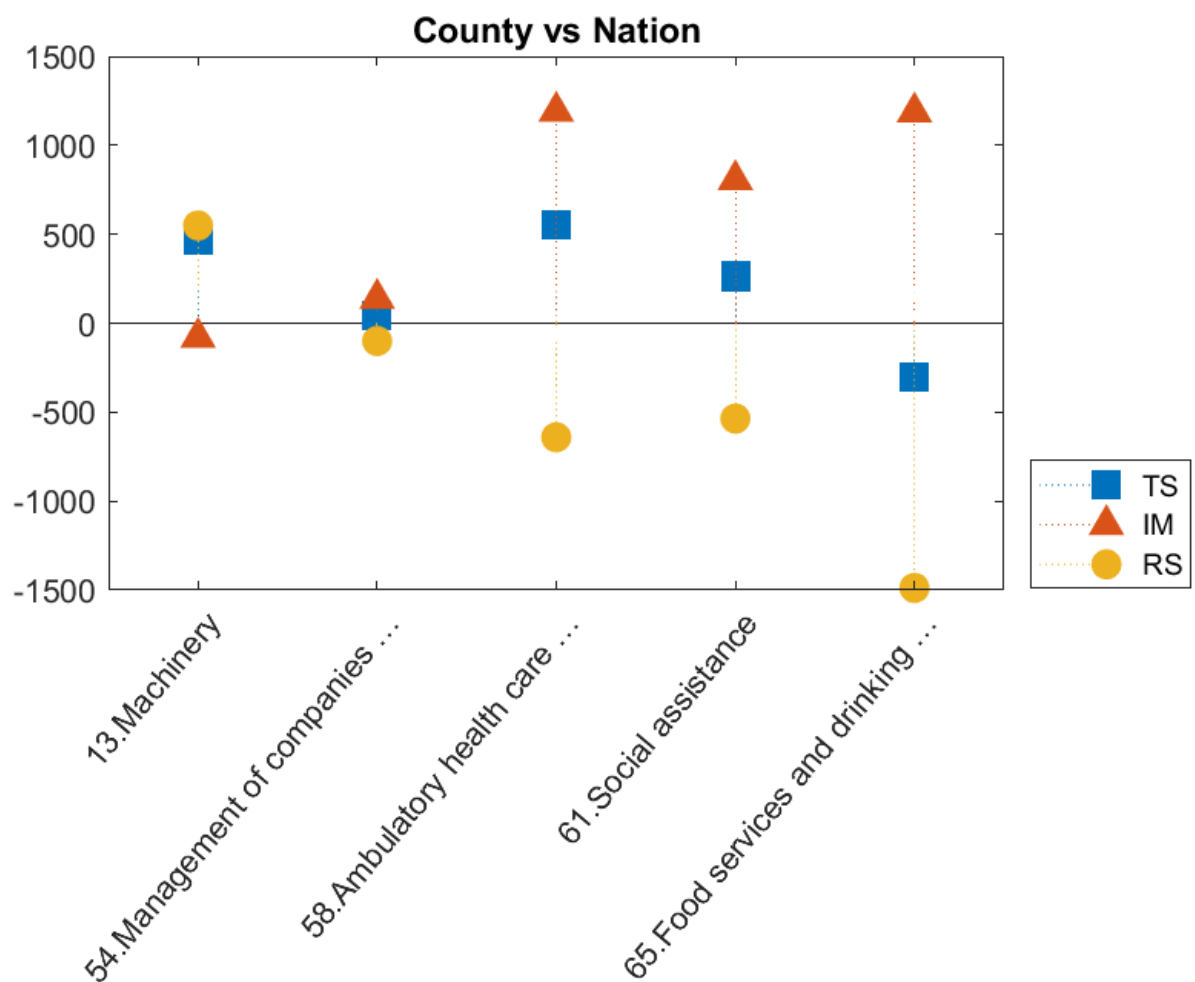
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Trumbull County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Trumbull County, Ohio vs the U.S.

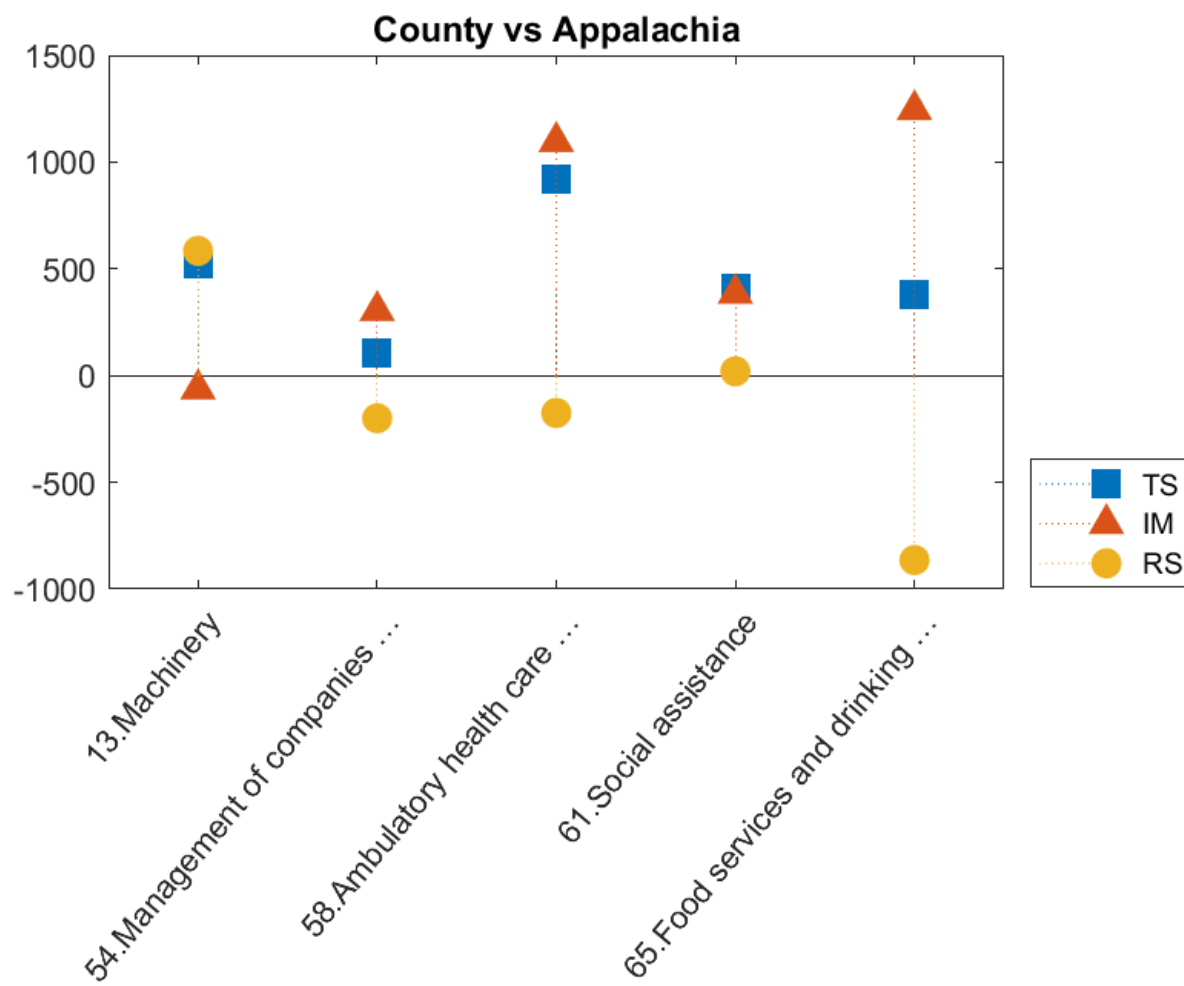


Chapter 29. Trumbull County, Ohio

Trumbull County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	54	469	-80	549	1,005
54	Management of companies	67	39	139	-100	698
	...					
58	Ambulatory health care	383	550	1,191	-641	4,329
	...					
61	Social assistance	139	270	806	-536	1,638
65	Food services and drinking ...	702	-301	1,187	-1,488	6,630

Selected SSA Components for Trumbull County, Ohio vs the Appalachian Region

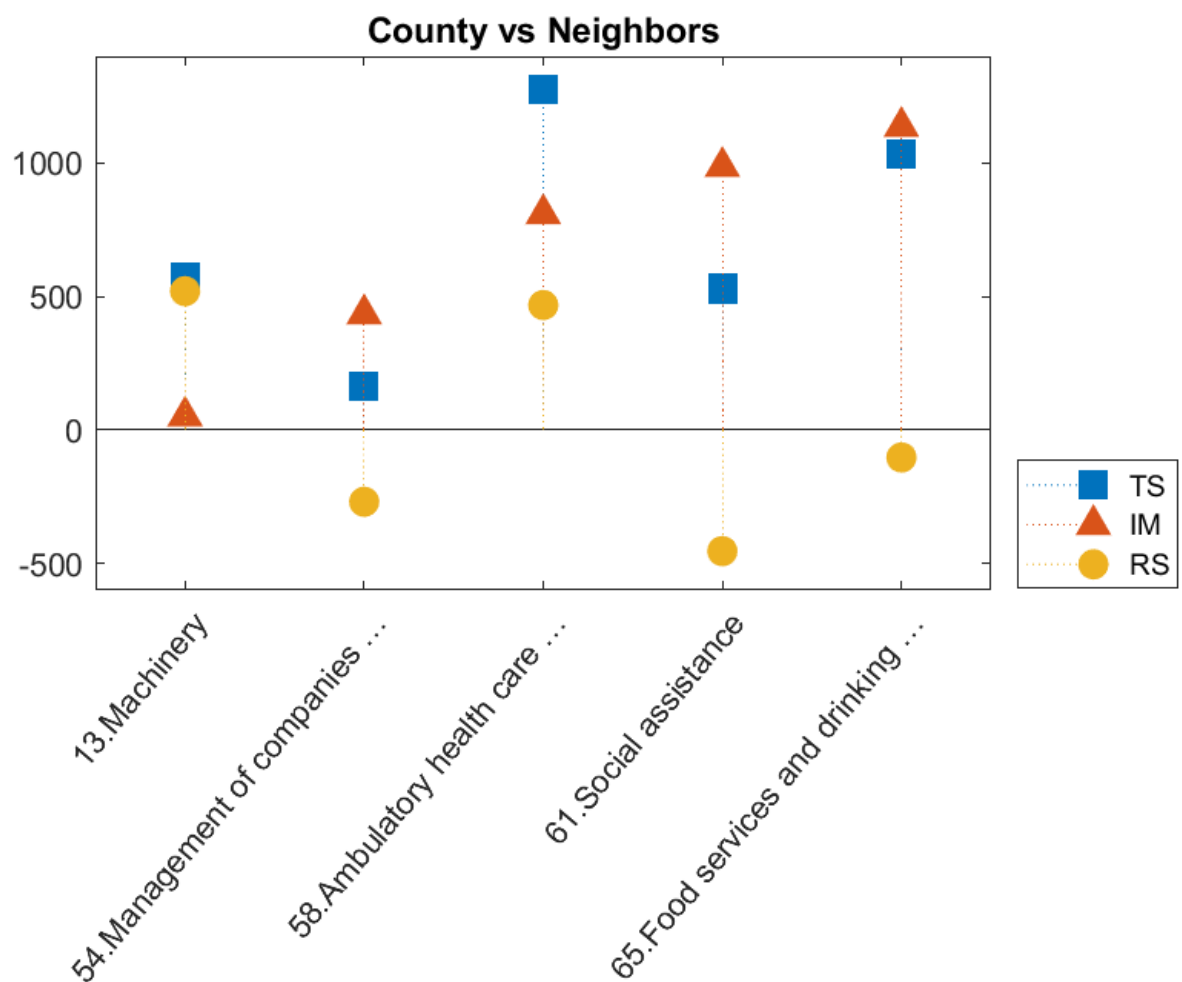


Chapter 29. Trumbull County, Ohio

Selected SSA Components for Trumbull County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	2	521	-63	584	1,005
54	Management of companies ...	2	104	304	-200	698
58	Ambulatory health care ...	12	921	1,096	-175	4,329
61	Social assistance	4	405	385	20	1,638
65	Food services and drinking ...	21	381	1,245	-864	6,630

Selected SSA Components for Trumbull County, Ohio vs Neighbors



Chapter 29. Trumbull County, Ohio

Selected SSA Components for Trumbull County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
13	Machinery	-49	572	52	520	1,005
54	Management of companies ...	-60	166	435	-269	698
58	Ambulatory health care ...	-345	1,278	810	468	4,329
61	Social assistance	-125	533	987	-454	1,638
65	Food services and drinking ...	-632	1,034	1,137	-103	6,630

Chapter 30. Tuscarawas County, Ohio

Employment in Tuscarawas County, Ohio, declined from 36,621 in 2005 to 36,565 in 2018, for a change of -56, or -0.15%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Tuscarawas County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	4,127	-4,187	-853	-3,334
vs. Appalachia	127	-181	-245	64
vs. Neighbors	-1,360	1,304	291	1,013

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Tuscarawas County, Ohio, in comparison to at least one of the three referent regions.

Chapter 30. Tuscarawas County, Ohio

Industry Group Membership for Tuscarawas County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
10	Nonmetallic mineral prod ...	F III c iii	no	yes	yes	yes
11	Primary metals	F III c i	no	yes	yes	yes
12	Fabricated metal products	F III c iii	no	yes	yes	yes
27	Plastics and rubber prod...	D III a iii	no	yes	yes	yes
53	Miscellaneous profession ...	B I a i	yes	yes	yes	yes
55	Administrative and ...	A I a iii	yes	yes	yes	yes
56	Waste management and ...	A I a i	yes	yes	yes	yes
59	Hospitals	E I a iii	no	yes	yes	yes
60	Nursing and residential ...	E I a i	no	yes	yes	yes
61	Social assistance	B II b ii	yes	yes	yes	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes
68	Government	F III a iii	no	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Tuscarawas County, Ohio vs. the United States

Groups a, b, and c are from Tuscarawas County, Ohio vs. Appalachia

Groups i, ii, and iii are from Tuscarawas County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Tuscarawas County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Tuscarawas County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Tuscarawas County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Tuscarawas County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

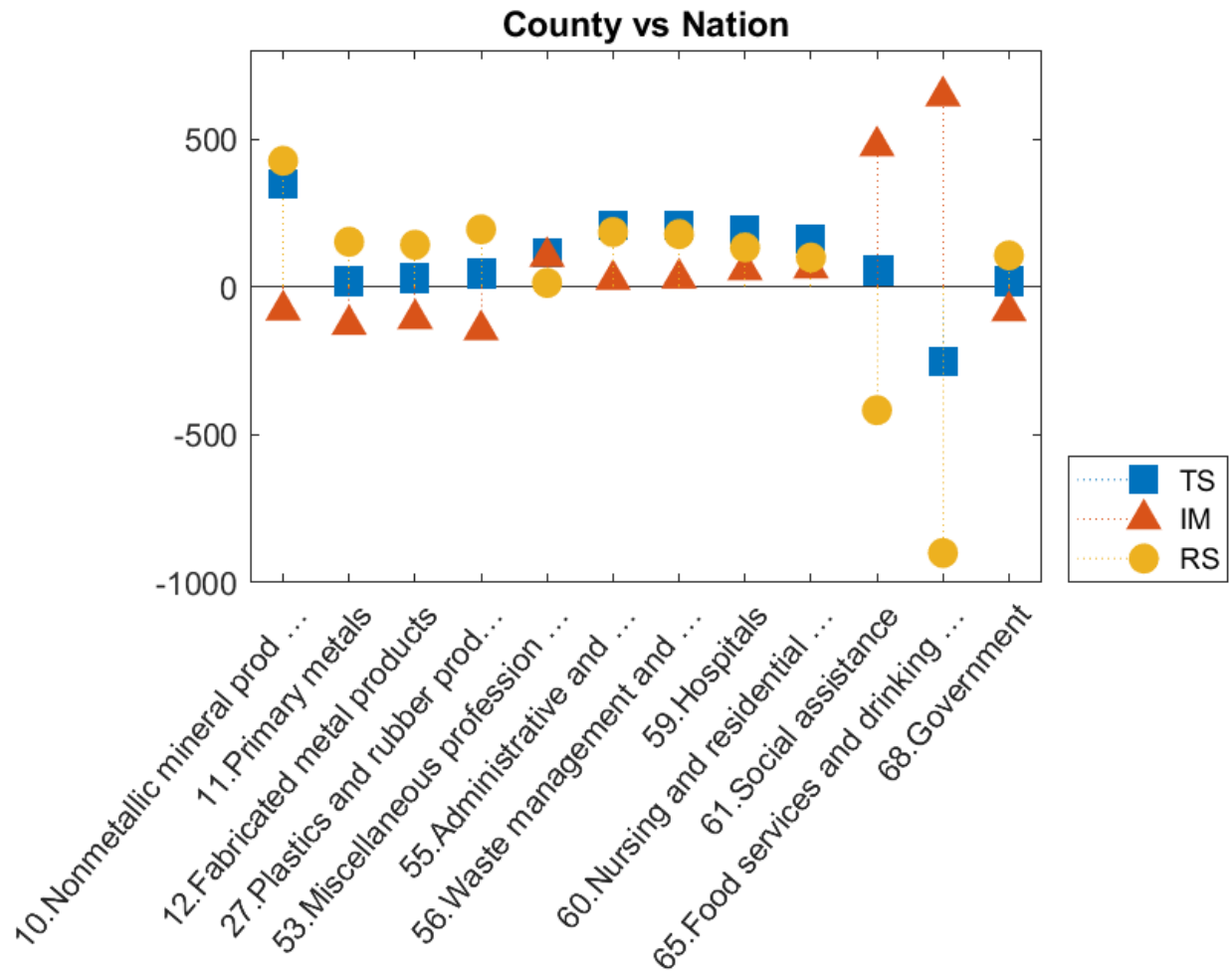
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Tuscarawas County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Tuscarawas County, Ohio vs the U.S.

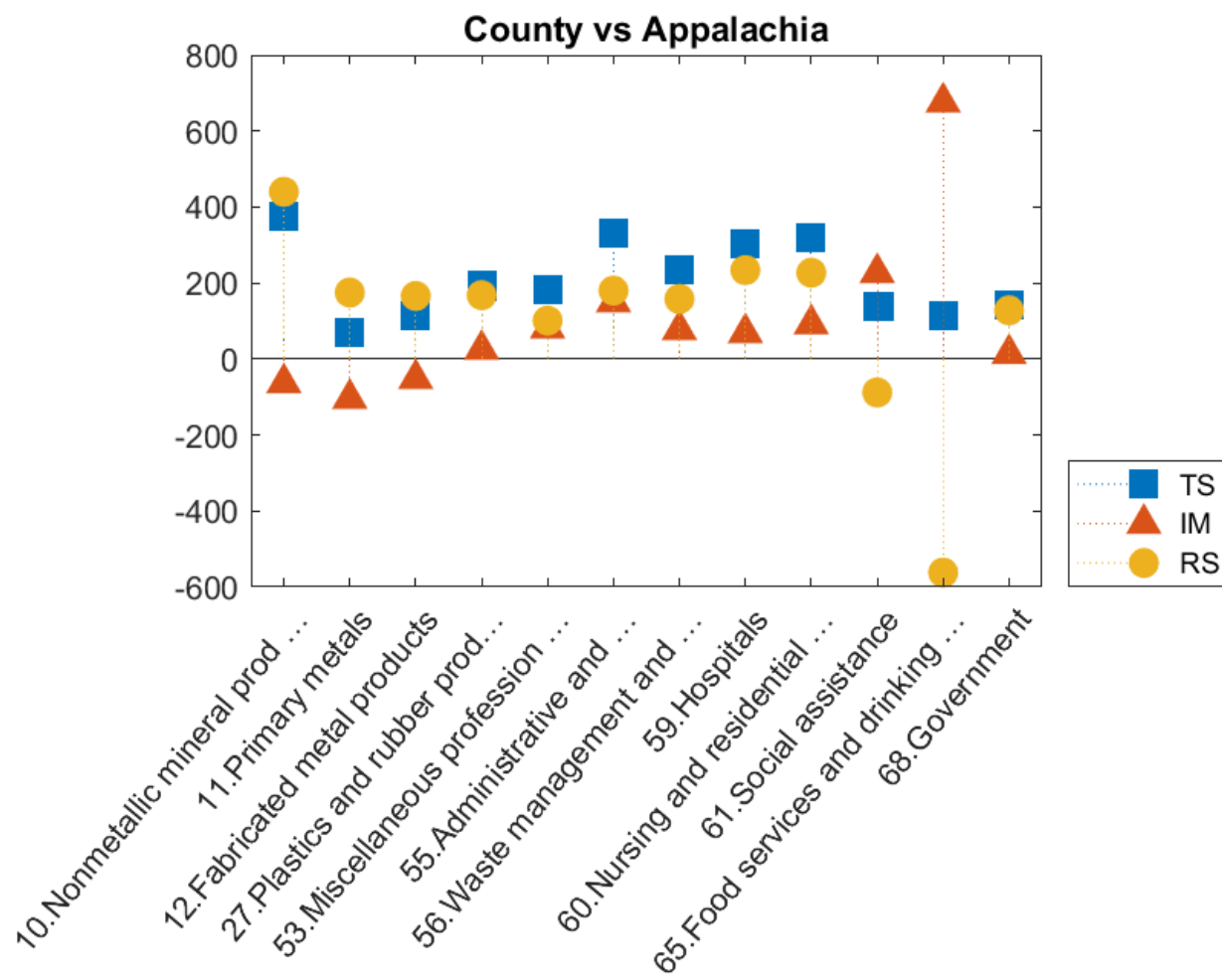


Chapter 30. Tuscarawas County, Ohio

Tuscarawas County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod ...	31	347	-79	426	653
11	Primary metals	49	24	-128	152	505
12	Fabricated metal products	83	34	-108	142	850
27	Plastics and rubber prod...	150	48	-146	194	1,528
53	Miscellaneous profession ...	68	115	102	13	790
55	Administrative and ...	124	209	24	185	1,432
56	Waste management and ...	29	207	29	178	494
59	Hospitals	116	190	57	133	1,337
60	Nursing and residential ...	161	162	63	99	1,755
61	Social assistance	82	59	476	-417	869
65	Food services and drinking ...	382	-255	645	-900	3,509
68	Government	122	24	-82	106	1,226

Selected SSA Components for Tuscarawas County, Ohio vs the Appalachian Region

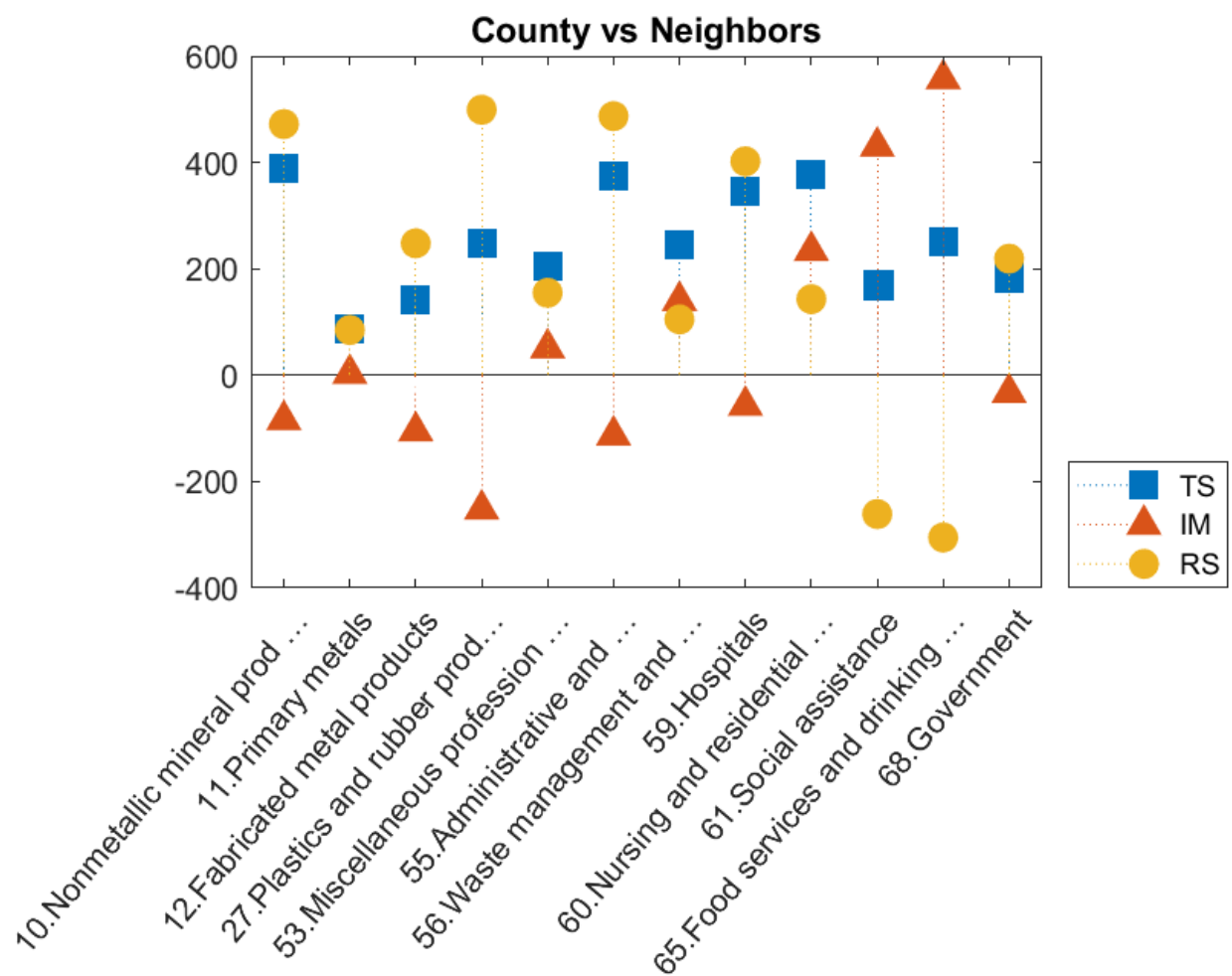


Chapter 30. Tuscarawas County, Ohio

Selected SSA Components for Tuscarawas County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod ...	1	377	-63	440	653
11	Primary metals	1	71	-104	175	505
12	Fabricated metal products	2	114	-52	166	850
27	Plastics and rubber prod...	5	193	25	168	1,528
53	Miscellaneous profession ...	2	182	81	101	790
55	Administrative and ...	4	330	150	180	1,432
56	Waste management and ...	1	235	77	158	494
59	Hospitals	4	303	69	234	1,337
60	Nursing and residential ...	5	319	92	227	1,755
61	Social assistance	2	139	227	-88	869
65	Food services and drinking ...	12	114	676	-562	3,509
68	Government	4	142	14	128	1,226

Selected SSA Components for Tuscarawas County, Ohio vs Neighbors



Chapter 30. Tuscarawas County, Ohio

Selected SSA Components for Tuscarawas County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
10	Nonmetallic mineral prod ...	-10	388	-84	472	653
11	Primary metals	-16	88	3	85	505
12	Fabricated metal products	-27	143	-105	248	850
27	Plastics and rubber prod...	-49	247	-252	499	1,528
53	Miscellaneous profession ...	-23	206	51	155	790
55	Administrative and ...	-41	374	-113	487	1,432
56	Waste management and ...	-10	245	140	105	494
59	Hospitals	-38	345	-57	402	1,337
60	Nursing and residential ...	-53	377	234	143	1,755
61	Social assistance	-27	169	430	-261	869
65	Food services and drinking ...	-126	252	557	-305	3,509
68	Government	-40	186	-33	219	1,226

Chapter 31. Vinton County, Ohio

Employment in Vinton County, Ohio, declined from 3,680 in 2005 to 2,274 in 2018, for a change of -1,406, or -38.21%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Vinton County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	413	-1,817	121	-1,938
vs. Appalachia	11	-1,418	-138	-1,280
vs. Neighbors	-283	-1,127	-408	-719

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Vinton County, Ohio, in comparison to at least one of the three referent regions.

Chapter 31. Vinton County, Ohio

Industry Group Membership for Vinton County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
20	Food and beverage ...	E I a i	no	yes	yes	yes
32	Other retail	F III c iii	no	yes	yes	yes
36	Truck transportation	F III c i	no	yes	yes	yes
37	Transit and ground ...	E I a i	no	yes	yes	yes
54	Management of companies ...	A I a ii	yes	yes	yes	yes
58	Ambulatory health care ...	B II a i	yes	yes	yes	yes
61	Social assistance	B II a ii	yes	yes	yes	yes
65	Food services and drinking ...	B I a i	yes	yes	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Vinton County, Ohio vs. the United States

Groups a, b, and c are from Vinton County, Ohio vs. Appalachia

Groups i, ii, and iii are from Vinton County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Vinton County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Vinton County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Vinton County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Vinton County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

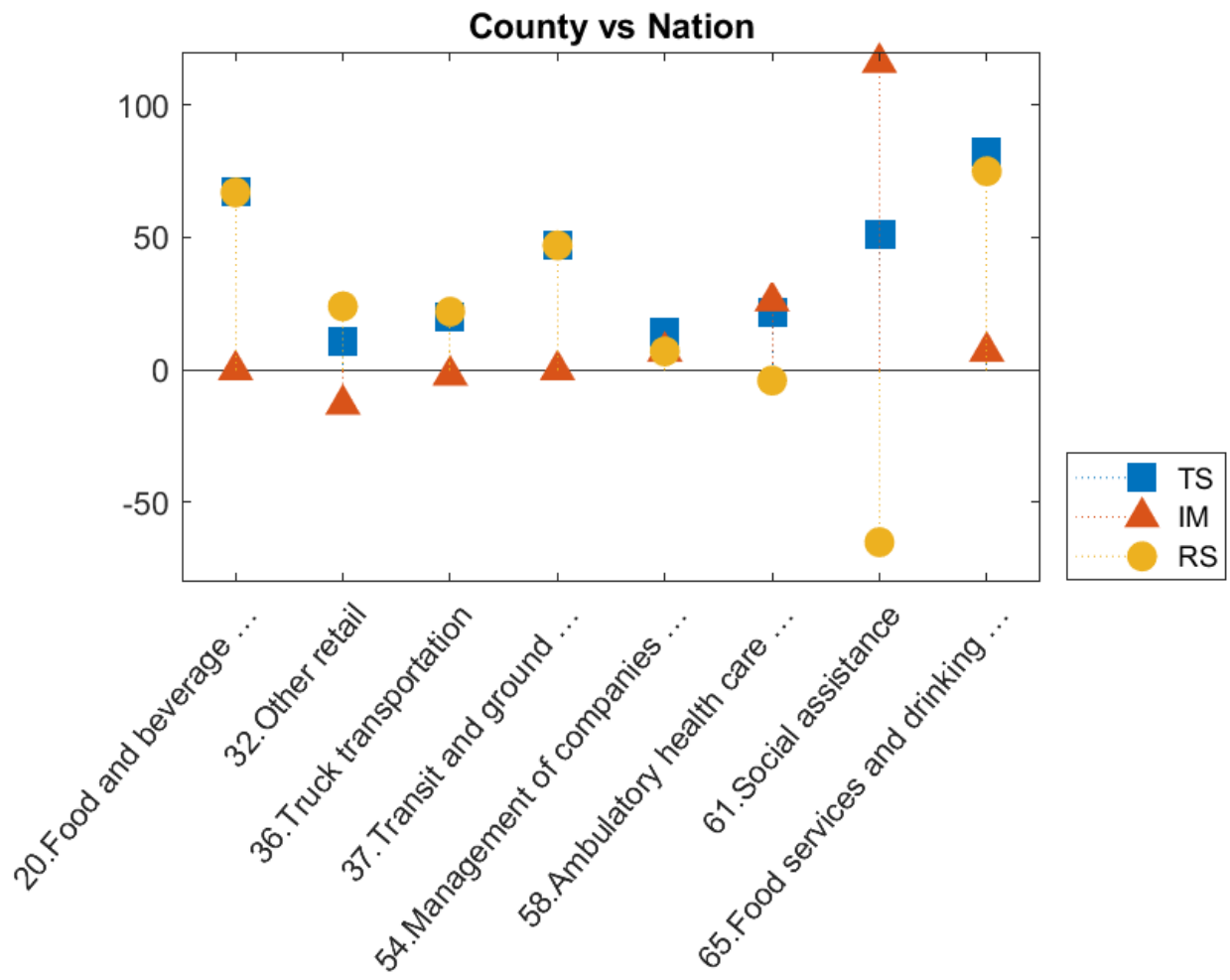
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Vinton County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Vinton County, Ohio vs the U.S.

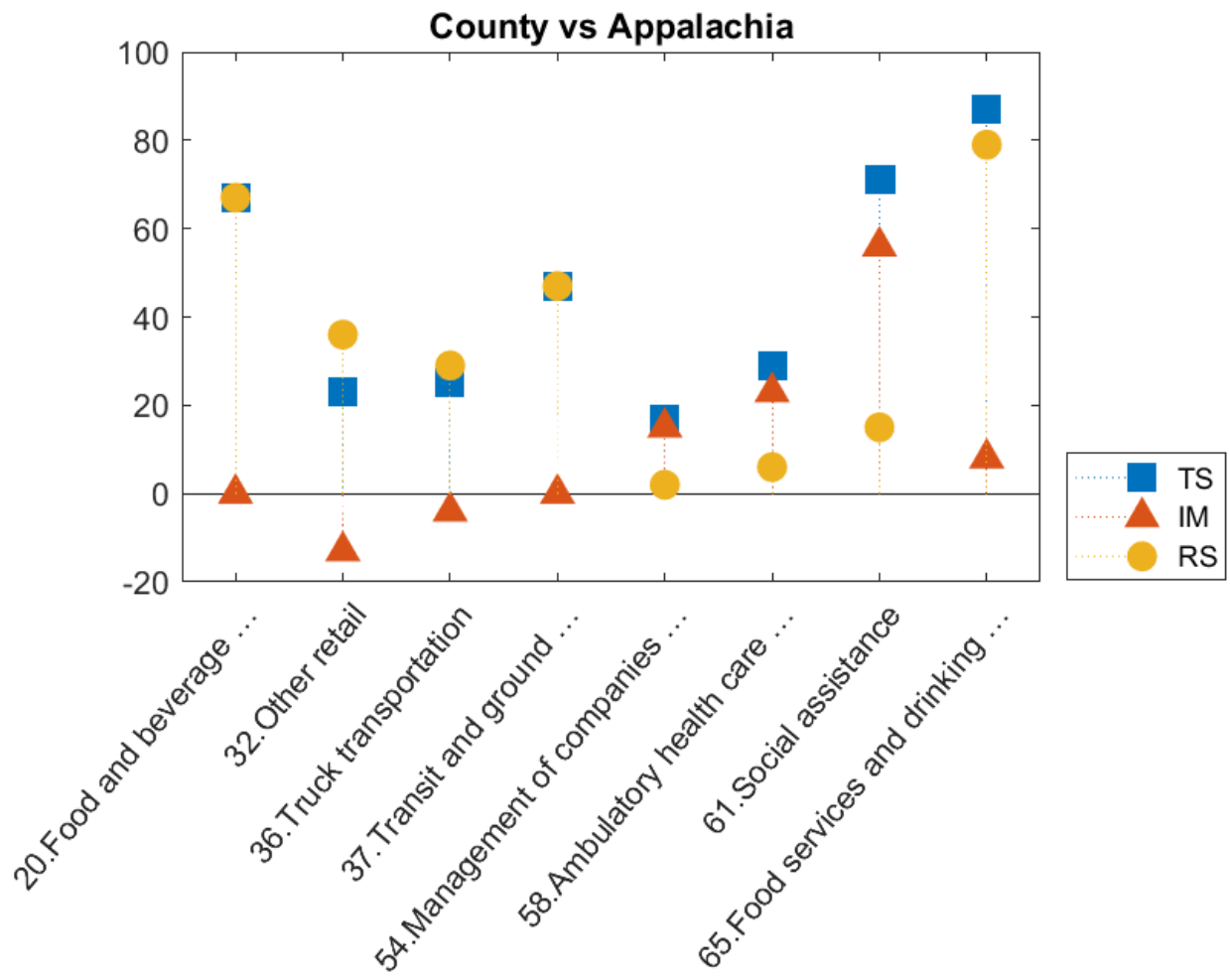


Chapter 31. Vinton County, Ohio

Vinton County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	0	67	0	67	67
32	Other retail	13	11	-13	24	143
36	Truck transportation	6	20	-2	22	80
37	Transit and ground ...	0	47	0	47	47
54	Management of companies ...	3	14	7	7	47
58	Ambulatory health care ...	8	22	26	-4	102
61	Social assistance	20	51	116	-65	249
65	Food services and drinking ...	4	82	7	75	124

Selected SSA Components for Vinton County, Ohio vs the Appalachian Region

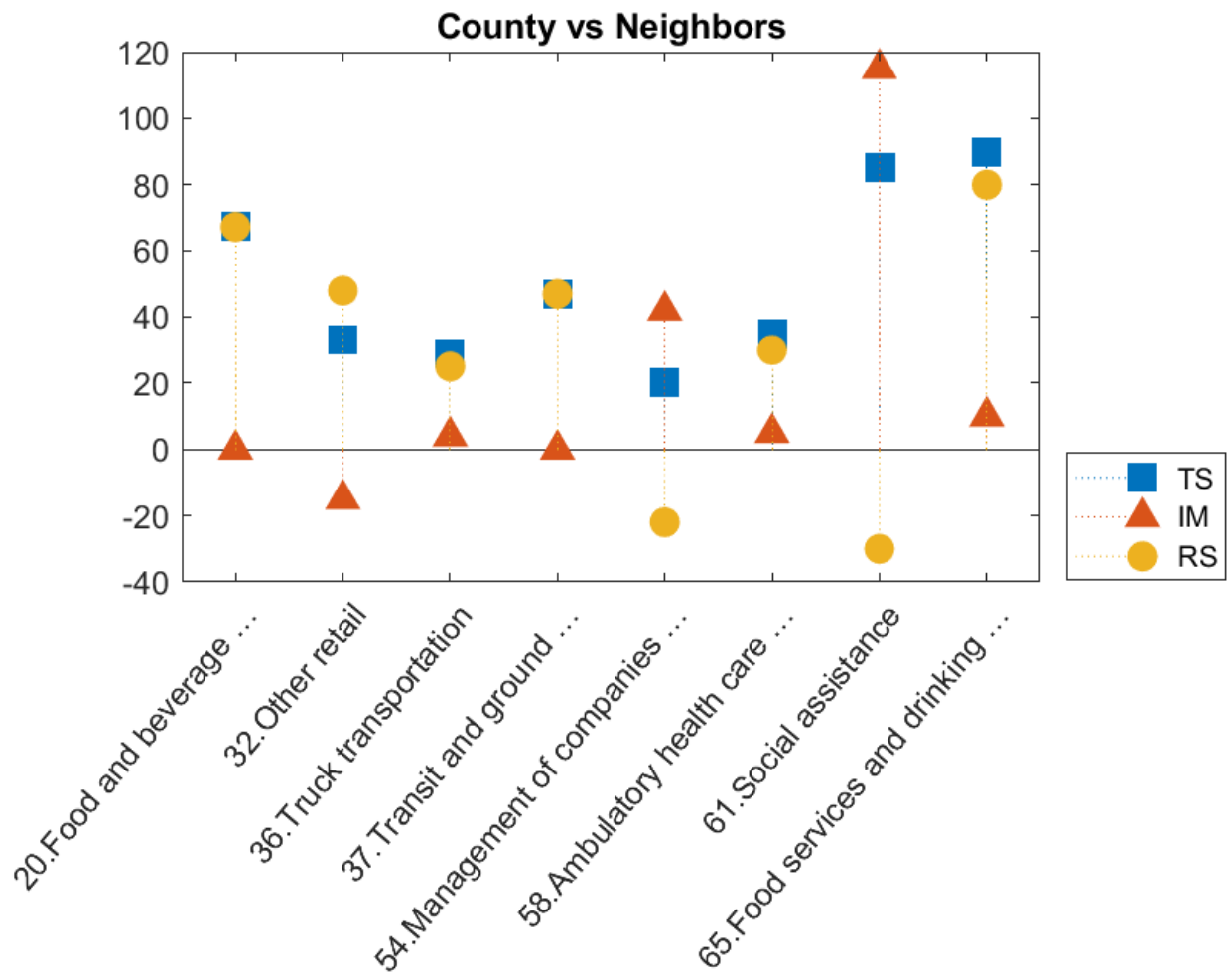


Chapter 31. Vinton County, Ohio

Selected SSA Components for Vinton County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	0	67	0	67	67
32	Other retail	0	23	-13	36	143
36	Truck transportation	0	25	-4	29	80
37	Transit and ground ...	0	47	0	47	47
54	Management of companies ...	0	17	15	2	47
58	Ambulatory health care ...	0	29	23	6	102
61	Social assistance	1	71	56	15	249
65	Food services and drinking ...	0	87	8	79	124

Selected SSA Components for Vinton County, Ohio vs Neighbors



Chapter 31. Vinton County, Ohio

Selected SSA Components for Vinton County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
20	Food and beverage ...	-0	67	0	67	67
32	Other retail	-9	33	-15	48	143
36	Truck transportation	-4	29	4	25	80
37	Transit and ground ...	-0	47	0	47	47
54	Management of companies ...	-2	20	42	-22	47
58	Ambulatory health care ...	-6	35	5	30	102
61	Social assistance	-14	85	115	-30	249
65	Food services and drinking ...	-3	90	10	80	124

Chapter 32. Washington County, Ohio

Employment in Washington County, Ohio, declined from 25,524 in 2005 to 25,203 in 2018, for a change of -321, or -1.26%. Readers should compare the employment values in the tables below to total county employment.

The first table shows the referent region share (NS), the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) job values for the county. The summary values shown represent sums of individual industry component values for all county industries. To be clear, the SSA components always refer to the county that is being compared to the referent region, and the NS label always refers to the county growth that would have taken place had it matched overall average growth in the referent region, which can be the United States, the Appalachian Region, or the county and its neighbors. The largest and smallest NS components in the summary table correspond to the fastest and slowest growing referent regions.

Summary Results for Washington County, Ohio

County Summary	NS	TS	IM	RS
vs. U.S.	2,881	-3,196	14	-3,210
vs. Appalachia	85	-408	385	-793
vs. Neighbors	-2,632	2,307	-92	2,399

The next table displays the group membership categories for industries belonging to any of the first three categories (signifying a positive total share value) for the Appalachian Region or the county relative to the United States — i.e., A, B, C, I, II, or III – and for the county relative to the Appalachian Region or its neighboring counties — i.e., a, b, c, i, ii, or iii. These are the industries that have passed the first screening step, as they have proven to be positive contributors to either the Appalachian Region in comparison to the United States as a whole, or to Washington County, Ohio, in comparison to at least one of the three referent regions.

Chapter 32. Washington County, Ohio

Industry Group Membership for Washington County, Ohio

Industry	Name	Group Membership	Type A or B or C	Type I or II or III	Type a or b or c	Type i or ii or iii
06	Support activities for ...	A I a i	yes	yes	yes	yes
07	Utilities	F III c i	no	yes	yes	yes
15	Electrical equipment, ...	D III c i	no	yes	yes	yes
27	Plastics and rubber prod...	D III a i	no	yes	yes	yes
30	Food and beverage stores	F III c i	no	yes	yes	yes
36	Truck transportation	F III c ii	no	yes	yes	yes
45	Federal Reserve banks, ...	F III c iii	no	yes	yes	yes
53	Miscellaneous profession ...	B V b ii	yes	no	yes	yes
54	Management of companies ...	A I a i	yes	yes	yes	yes
58	Ambulatory health care ...	B I a i	yes	yes	yes	yes
59	Hospitals	E I a iii	no	yes	yes	yes
61	Social assistance	B II b ii	yes	yes	yes	yes
65	Food services and drinking ...	B V b ii	yes	no	yes	yes

Notes:

Groups A, B, and C are from Appalachia vs. the United States

Groups I, II, and III are from Washington County, Ohio vs. the United States

Groups a, b, and c are from Washington County, Ohio vs. Appalachia

Groups i, ii, and iii are from Washington County, Ohio vs. its neighbors

Industry-Specific Results

Below we report the results for the three shift-share analyses comparing Washington County, Ohio, to each of three referent regions: the United States as a whole, the Appalachian Region, and the region defined by Washington County, Ohio, and its neighboring counties. The results for each of the three analyses are presented both visually and in tabular form.

The chart provides a visual display of the Total Share (TS), Industry Mix (IM), and Regional Shift (RS) components of change. The IM indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. So, a positive value here also means that the industry is growing more rapidly than the overall growth rate for the referent region. The RS component measures the actual employment change in the industry in Washington County, Ohio, after adjusting for overall referent-region and industry-specific growth rates. A positive value here reflects better than expected industry performance, which implies that Washington County, Ohio, might have a comparative advantage as a location for this industry. The tables also include the 2018 employment estimates for each reported industry.

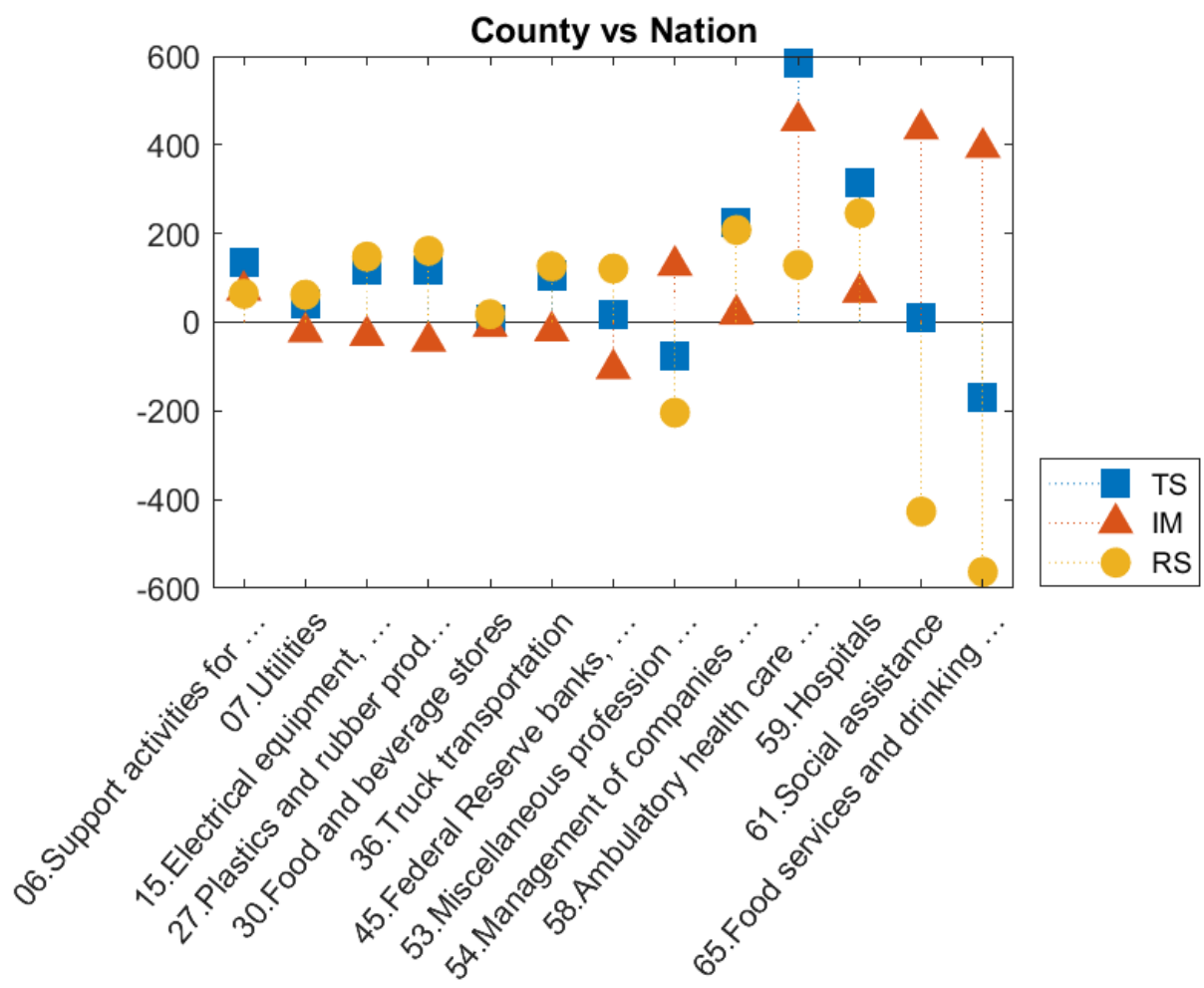
The TS component is the sum of the IM and RS components. A positive TS value also conveys a positive message, especially when both IM and RS are positive. When IM is positive but RS is negative, a positive TS indicates that although the county might not enjoy a regional comparative advantage, the industry in Washington County, Ohio, is still growing at a faster rate than the overall referent region average. Likewise, when IM is negative and RS is positive, the implication is that the regional comparative advantage is sufficiently strong to overcome the slower than average industry growth rate.

Interpreting Different Referent Region Results

The three SSA are conducted relative to three different referent regions: (1) the United States as a whole, (2) the Appalachian Region, and (3) the region defined by the county and its neighboring counties. As such, the IM component indicates the change in industry employment that would have occurred had the industry grown at a rate equal to the difference between the industry-specific growth rate in the referent region and the overall referent-region growth rate. Likewise, the regional shift components, RS, reflect county-specific industry comparative (dis)advantages relative to those same industries in each of the three referent regions. As before, the NS label always refers to county growth that would have occurred had the county industry grown at the overall average rate of growth in the referent region.

Reporting the results for each of three referent regions enables readers to compare county performance to the United States, the Appalachian Region, and the region defined by the county and its neighboring counties. Although economic growth in Appalachia overall and by industry generally lags the rest of the United States, positive SSA components can still be useful for identifying industries that are positive contributors relative to Appalachian Region and to the more localized economy.

Selected SSA Components for Washington County, Ohio vs the U.S.

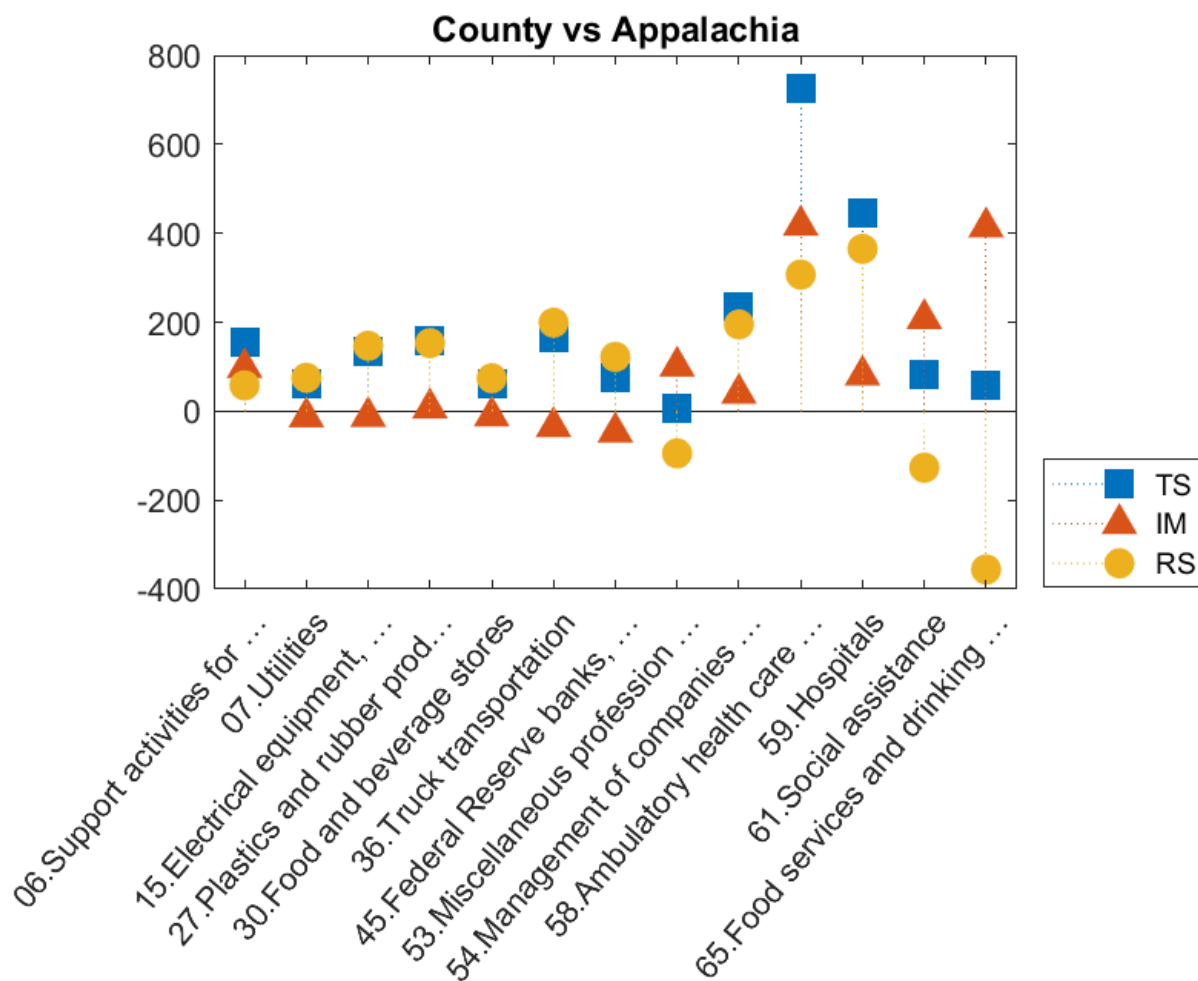


Chapter 32. Washington County, Ohio

Washington County, Ohio vs U.S. for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	20	136	72	64	331
07	Utilities	24	40	-22	62	272
15	Electrical equipment, ...	17	118	-30	148	288
27	Plastics and rubber prod...	45	118	-43	161	558
30	Food and beverage stores	57	8	-10	18	570
36	Truck transportation	60	106	-20	126	702
45	Federal Reserve banks, ...	61	16	-105	121	614
53	Miscellaneous profession ...	85	-76	128	-204	763
54	Management of companies ...	9	226	18	208	312
58	Ambulatory health care ...	146	583	454	129	2,023
59	Hospitals	137	313	67	246	1,664
61	Social assistance	75	9	436	-427	749
65	Food services and drinking ...	233	-169	394	-563	2,134

Selected SSA Components for Washington County, Ohio vs the Appalachian Region

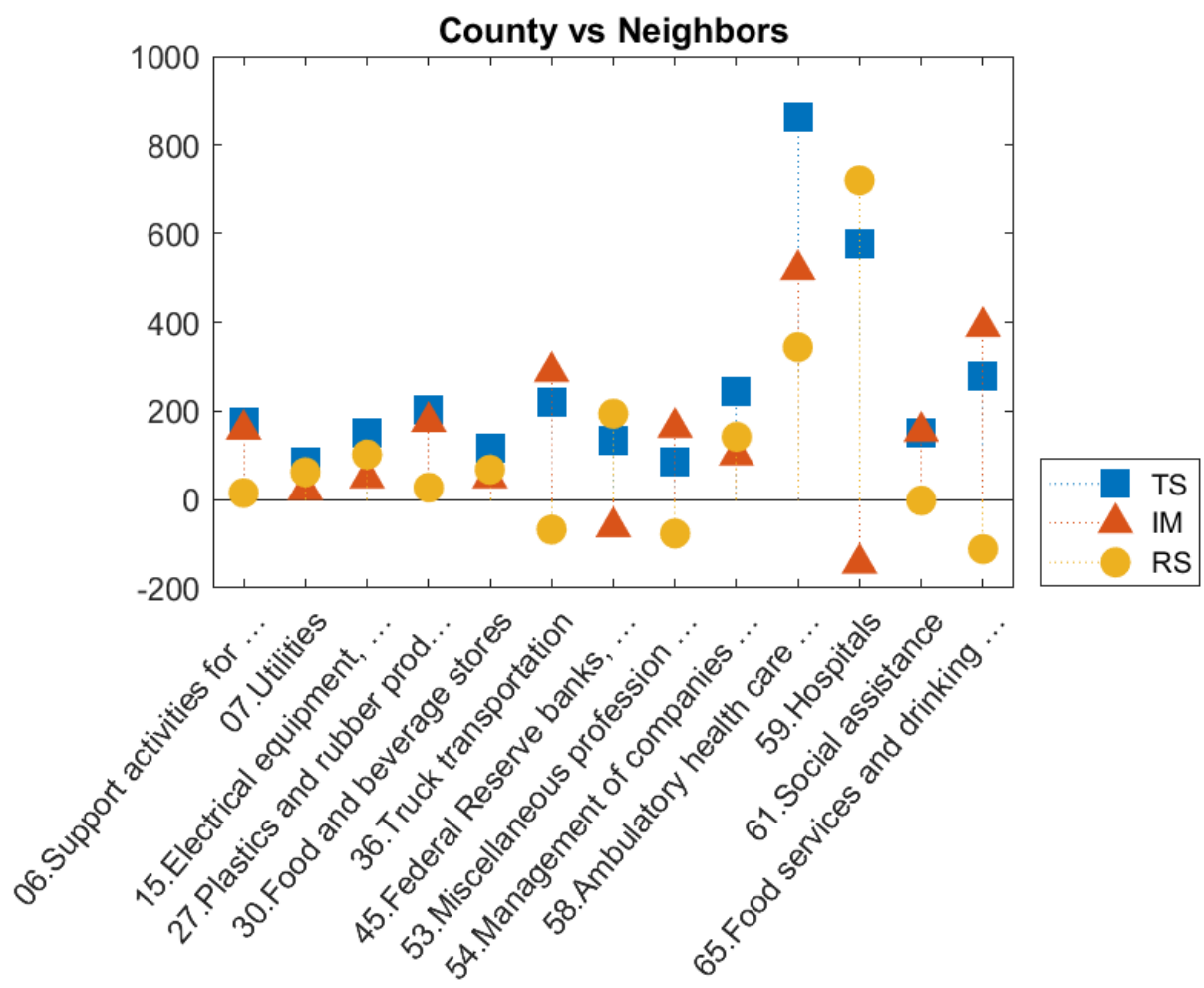


Chapter 32. Washington County, Ohio

Selected SSA Components for Washington County, Ohio vs the Appalachian Region

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	1	156	98	58	331
07	Utilities	1	62	-13	75	272
15	Electrical equipment, ...	1	135	-12	147	288
27	Plastics and rubber prod...	1	160	7	153	558
30	Food and beverage stores	2	63	-11	74	570
36	Truck transportation	2	164	-35	199	702
45	Federal Reserve banks, ...	2	75	-47	122	614
53	Miscellaneous profession ...	3	6	101	-95	763
54	Management of companies ...	0	235	40	195	312
58	Ambulatory health care ...	4	725	418	307	2,023
59	Hospitals	4	446	81	365	1,664
61	Social assistance	2	81	208	-127	749
65	Food services and drinking ...	7	58	414	-356	2,134

Selected SSA Components for Washington County, Ohio vs Neighbors



Chapter 32. Washington County, Ohio

Selected SSA Components for Washington County, Ohio vs Neighbors for Selected Industries

Industry	Name	NS	TS	IM	RS	Employment 2018
06	Support activities for ...	-18	174	159	15	331
07	Utilities	-22	84	22	62	272
15	Electrical equipment, ...	-16	151	49	102	288
27	Plastics and rubber prod...	-41	203	176	27	558
30	Food and beverage stores	-52	117	49	68	570
36	Truck transportation	-55	221	289	-68	702
45	Federal Reserve banks, ...	-55	132	-62	194	614
53	Miscellaneous profession ...	-78	86	163	-77	763
54	Management of companies ...	-8	243	101	142	312
58	Ambulatory health care ...	-133	862	518	344	2,023
59	Hospitals	-125	575	-144	719	1,664
61	Social assistance	-68	152	154	-2	749
65	Food services and drinking ...	-213	278	390	-112	2,134